R. B. HANSEN

REPORT OF T

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

FISCAL YEAR
1940-1941

WATER DEPARTMENT
MUNICIPAL RAILWAY
HETCH HETCHY WATER SUPPLY,
POWER AND UTILITIES
ENGINEERING BUREAU
SAN FRANCISCO AIRPORT DEPARTMENT
STREET AND PUBLIC BUILDING
LIGHT, HEAT AND POWER BUREAU

TREASURE ISLAND

Site of the Golden Gate International Exposition and future site of San Francisco's second air terminal, where power and water developed by the City combined to make magic nights.

REPORT OF

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

•

FISCAL YEAR 1940-1941

•

COMMISSIONERS

LEWIS F. BYINGTON
President

GEORGE FILMER
Vice-President

JOHN P. McLAUGHLIN

JOHN H. McCALLUM

SAM McKEE

•

EDWARD G. CAHILL
Manager of Utilities

•

***JOHN J. SHARON**
Secretary of the Commission

•

FORREST B. GIBBON
Secretary to the Manager

*Deceased

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CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION

December 20, 1941.

Honorable Angelo J. Rossi,
Mayor of the City and County of San Francisco.

My dear Mayor:

The Public Utilities Commission of the City and County of San Francisco, in compliance with the provisions of the Charter of said City and County, is pleased to submit its annual report for the period beginning the first day of July, 1940, and ending the 30th day of June, 1941.

This is the ninth annual report presented by the Commission, which Commission was created under the terms of the municipal Charter. The Charter was ratified by the People of San Francisco on the 26th day of March, 1931, and by the State Legislature on the 13th day of April, 1931, and went into effect at twelve o'clock, noon, on the 8th day of January, 1932.

The Public Utilities Commission consists of five members appointed by the Mayor, each for a term of four years. The Commission "has charge of the construction, management, supervision, maintenance, extension, operation and control of all public utilities owned, leased or used by the City and County." These utilities are, at the present time, the San Francisco Water Department, the Hetch Hetchy project, including both water and power, the San Francisco Municipal Railway and the San Francisco Airports. The Commission also is given jurisdiction to enter into contracts for the furnishing of heat, power and light for municipal purposes. It has charge of all valuation work incidental to purchase proceedings, initiated by the City and County for the acquisition of any public utility, and has power to fix, change and adjust charges and fares for the furnishing of service by any utility under its jurisdiction.

Detailed reports are presented herewith, by the various departments operating under the Commission, and these reports show the work done, the improvements made and those contemplated by said departments and also all revenues received and expenditures made.

The operation of our public utilities has been carried on in an efficient, economical and business-like manner, and with the purpose in mind of conserving the safety and convenience of our people. We look forward to continued improvements and betterments which will be for the material welfare and the industrial advancement of San Francisco.

Very respectfully yours,

Lewis F. Byington

President, Public Utilities Commission.

LFB:G

CONTENTS

	Page
LETTER OF TRANSMITTAL	v
ILLUSTRATIONS AND DIAGRAMS	xiv
REPORT OF THE SAN FRANCISCO PUBLIC UTILITIES COMMISSION	1
General	1
Water Department	1
Municipal Railway	2
Airport Development	4
Hetch Hetchy Water Supply	6
Hetch Hetchy Water Rights and Litigation	6
Hetch Hetchy Power Disposal	6
Street Lighting Construction	7
Commission Personnel	7
General Office	7
Audits	8
SAN FRANCISCO WATER DEPARTMENT	11
WATER PRODUCTION	11
General Operation	11
Rainfall Catchment and Storage	13
Transmission	13
Reservoirs	13
Pump Operation	16
Pipe Lines	17
Aqueducts	21
Peninsula General	21
Alameda General	22
Alameda County Water District	22
Pleasanton Township County Water District	22
Outside Meters	23
CITY DISTRIBUTION DIVISION	23
Water Consumption	23
General Operating Conditions	23
Transmission Mains	23
City Reservoirs	25
Lake Merced	25
Pumping Stations	25
Meter Expense	25
Street Department Expense	25

CONTENTS—Continued

Page

Machine Shop 25
Service Connections and Meter Installations 26
City Pipe System 26
Contracts for Main Extensions 26

WATER PURIFICATION DIVISION 26
Laboratory 27
Chlorination 27
Algae and Weed Control 28
Report of Laboratory Examinations 29
Mineral Analyses 30
Filamentous Organisms 30
Cross Connections 30
Complaints 31
Corrosion 31
Exposition Studies and Fire 32
General 32

WATER SALES DIVISION 32

ENGINEERING DIVISION 35

FORMAL CONTRACTS 35
Additions to City Distributing System 35
Additions to Supply and Transmission Facilities 43
Miscellaneous Contracts 45

INFORMAL CONTRACTS 45

AGRICULTURAL DIVISION 46
Summary, Holdings and Leases 46
Pleasanton Lands 47
Sunol Lands 47
Cattle Leases 47
Unpaid Rentals 47
Share Crops 49
Walnut Orchard 49
Care of the Orchard 49
Fencing and Boundary Lines 49
Care of Properties 49
Walnut Orchard Returns 50

CONTENTS—Continued

Page

ACCOUNTING AND AUDITING 50
- Comments on Financial Statements 50
  - Exhibit A—General Balance Sheet 50
  - Exhibit B—Income Statement 52
  - Exhibits C and D—Disposition of Earned Surplus 53
- Exhibit A—Balance Sheet 54
- Exhibit B—Income Account 55
- Exhibit C—Surplus Account 56
- Exhibit D—Composition of Surplus 57
- Exhibit E—Comparative Statement of Operating Expenses 58
- Schedule 1—Fixed Capital in Service 59
- Schedule 2—Comparison of Actual Revenues and Expenditures with Budget Estimates 60
- Schedule 3—Cash and Outstanding Warrants 62
- Schedule 4—Summary of Inter-Fund Accounts 62
- Schedule 5—Bond Redemption and Interest 63
- Schedules 6-15—Operating Expenses 64
- Schedule 16—Additions, Betterments and Replacements 73

APPENDIX TO WATER DEPARTMENT REPORT 74
- Contents 74
- San Francisco Rainfall by Months 75
- Seasonal Rainfall 75
- Storage in Million Gallons 75
- Water Drawn from Hetch Hetchy and Auxiliary Sources 76
- Seasonal Draft on Surface Storage and Auxiliary Sources 76
- Consumption in Million Gallons Per Day 77
- Average Daily Consumption Since 1865 77
- Delivery Through Pipe Lines in Million Gallons Daily 77
- Source of Water Transported Across San Francisco Bay 78
- Comparative Pumping Costs 78
- Average Daily Consumption by Districts 79
- Peak Consumption by Districts 79
- Unit Cost for Meter Maintenance 80
- Unit Cost of Meter Installation 80
- Unit Cost of Service Connection 80
- Pipe Record for Fiscal Year 81
- Valve Record 82
- Contract Data 83
- Gross Metered Service, Revenues, Etc. 85
- Charges of Non-Paying Municipal Accounts 86

CONTENTS—Continued

Page

Charges of Paying Municipal Accounts 87
Meters Installed, San Francisco District 87
Meters Installed, Suburban District 88
Street Main Taps and Service Connections Record 89
Official Meter Tests 90
Record of Bad Water Complaints 90
Record of No Water Complaints 91
Record of Building Permits 91
Number of Building Permits 92
Contract Jobs Handled 92
Receipts and Expenses, Agricultural Division 93
Organization and Personnel 94

HETCH HETCHY WATER SUPPLY, POWER AND UTILITIES ENGINEERING BUREAU 97
Organization and Personnel 97
Publicity and Visitors 98

HETCH HETCHY WATER SUPPLY 98
Hydrography 98
Water Litigation 101
Relations with Turlock, Modesto and Waterford Irrigation Districts 101
Relations with United States Department of the Interior 102
Tuolumne River Flood Control Studies 102
Cherry River Development 102
Transbay Construction Company Litigation 103
Hetch Hetchy Railroad 103
Watersheds and Impounding Reservoirs 103
Quarters at O'Shaughnessy Dam 104
Quarters at Lake Eleanor 104
O'Shaughnessy Dam 105
Mather Recreation Camp 105
Lower Cherry Aqueduct 105
Main Aqueduct, Mountain Division 106
Main Aqueduct, Moccasin Division 106
Main Aqueduct, Foothill Division 108
San Joaquin Division 108
Main Aqueduct, Coast Range Division 108
Main Aqueduct, Bay Crossing and Peninsula Divisions 109
Financial Statements 109
Contracts 109

CONTENTS—Continued

Page

HETCH HETCHY POWER OPERATION 110
- Water Conditions 110
- Early Intake Power House 110
- Moccasin Power House 110
- Transmission and Communications 111
- Power Production 111
- Output Data 112
- Power Disposal 112

MUNICIPAL RAILWAY ENGINEERING 115
- Howard Trolley Bus Line 116
- Addition to Seventeenth Street Carbarn 117
- Terminal Loops 117
- Mariposa Street Yard 117
- Track Reconstruction 118
- Reconstruction on Market Street 119
- Car Shop and Garage 119

SAN FRANCISCO AIRPORT ENGINEERING 119

TREASURE ISLAND AIRPORT 120
- Consolidated Balance Sheet 122
- Consolidated Comparative Income Statement 124
- Consolidated Surplus Account 126
- Hetch Hetchy Project Operating Fund Balance Sheet 128
- Hetch Hetchy Project Operating Fund Appropriations 130
- Statement of Annual Bond Redemption 134
- Statement of Annual Bond Interest 136
- Automotive Equipment Operations 138
- Proprietary Balance Sheet—Power Division 140
- Comparative Income Statement—Power Division 141
- Surplus Account 142
- Detail of Operating Expense—Power Division 143
- Comparison of Actual Revenues and Expenses with Budget Estimates—Power Division 145
- Electric Plant in Service 146
- Schedule No. 1-A—Power Division 148
- Schedule No. 1-B—Power Division 150
- Schedule No. 2—Hetch Hetchy Power Replacement and Reconstruction Fund Receipts and Disbursements 151
- Schedule No. 3—Detail of Interfund Balances—Power 152
- Exhibit A—Proprietary Balance Sheet—Water Supply 154
- Exhibit B—Comparative Income Statement—Water Supply 156
- Exhibit C—Surplus Account—Water Supply 157
- Exhibit D—Comparative Statement of Operating Expenses—Water Supply 158

CONTENTS—Continued

Page

Exhibit E—Comparison of Actual Revenues and Expenses with Budget Estimates—Water Supply 159
Fixed Capital in Service—Water Supply 160
Gross Additions—Water Supply 162
Retirements—Water Supply 163
Reserve for Depreciation of Plant—Water Supply 164
Reconstruction and Replacement Fund Receipts and Disbursements—Water Supply 166
Detail of Funds, Bonded Debt and Warrants Outstanding—Hetch Hetchy Water Supply and Power Project 167
Detail of Interfund Balances—Water Supply 168
Detail of Construction Work in Progress—Water Supply 170
Reserve of San Francisco Water Department and Hetch Hetchy Power Division Advances for Commitments 171
Report of Expenditures—Water Supply 172
Report of Operating Expenses—Water Supply and Utilities Engineering Bureau 174
Reserve of Operating Advances for Contracts, Purchase Orders and Other Commitments 175-A

STREET AND BUILDING LIGHTING BUREAU 177
Street Lighting Operation and Maintenance 177
Engineering and Construction 179
Gas and Electric Supply 184
Administration 188
Cost of Street Lighting Operations 192
Street Lighting Damage Claims 193
Street Lighting Expenditures 194
New City-Owned Street Light Construction 194
Investment in City-Owned Street Lighting by Years 196
Major Street Lighting Improvements Financed by P. G. and E. 196
Gas and Electricity Consumption and Expenditures 198
Purchase of Electricity by Schedules 200
Purchase of Gas by Schedules 201

SAN FRANCISCO AIRPORT DEPARTMENT 203
Foreword 203
Increases in Airline Traffic 203
United Air Lines Base 204
United States Coast Guard 205
Landing Field Enlargement 205
Tide Flat Reclamation, Seaplane Channel 206
Miscellaneous Improvements 207
Government Trains Airport Helpers 207
United States Weather Bureau Established at Airport 207
Transpacific Radio at Airport 208
Radio Range Station 209
Navy and Pan American at Treasure Island 209

CONTENTS—Continued

Page

Pan American Airways Expands Operations 210
Singapore New Terminus in Orient 211
Scheduled Flying in North Pacific 211
Scheduled Flying in South Pacific 211
Pan American Airways Log 211

NATIONAL AERONAUTICAL PROGRESS 212
Federal Airport Program 212
Aircraft Production 213
Scheduled Air Transport Activity in the United States 213
Private Flying in the United States 214
California Continues to Lead in Private Flying 215

TRANSPORT TRAFFIC AT AIRPORT 215
Airlines Need More Planes 216
Airport Traffic Figures 217

LOCAL FLYING 217
Operations of United Airlines and TWA 218
Classification of Locally Based Aircraft 219

TENANTS 219
United Air Lines Transport Corporation 219
Transcontinental and Western Air, Inc. 219
United States Weather Bureau 220
Skyway Cafe 220
Wunderlich Radio, Inc. 220
Offices and Shops Off Hangars 220
Airplane Owners 222
Telegraph Agencies 222

ENGINEERING AND CONSTRUCTION WORK 222

AIRPORT TRAFFIC CONTROL 225
Safety at San Francisco Airport 226

PERSONNEL 226

TABULAR MATERIAL 228
Balance Sheet 228
Income Account 229
Surplus Account 230
Detail of Inter-Fund Accounts 231
Airport Bonds Outstanding 232
Comparisons of Actual Revenues and Expenditures with Budget Estimates 233
Trial Balance 234

CONTENTS—Continued

Page

Detail of Fixed Capital Under Construction 237
Engineering and Construction Work 238
Weather Data 239

MUNICIPAL RAILWAY 241
General 241
Twenty-eight and One-Half Years' Operation 247
Organization and Personnel 248
Auditing and Accounting 249
Maintenance of Track and Roadway 249
Maintenance Jobs 250
Statement of Expenditures for Maintenance Jobs 251
New Construction and Additions 251
Statement of Expenditures from Operating Fund or Contributed for Additions, Betterments and New Construction 253
Reconstruction and Replacements 254
Statement of Expenditures for Reconstruction and Replacements 255
Transportation 259
Maintenance of Equipment 261
Bureau of Claims 261
Classification of Accidents 262
Comparative Statement of Accident Reports 262
Court Statistics 263
Exhibit A—General Balance Sheet 269
Exhibit B—Comparative Income Statement 270
Exhibit C—Reconstruction and Replacement Fund 272
Exhibit D—Comparison of Budget with Actual Receipts and Expenditures 273
Exhibit E—Intra-Fund Accounts 274
Schedule 1—Road and Equipment 275
Schedule 2—Analysis of Reserve for Depreciation and Rates 276
Field Operating Statement 278
Summary of Income and Outlay 279
Statement of Bus Line Operations 280
Comparative Operating Receipts Statement 283
Recapitulation of Passenger Traffic 284
Comparison of Car Hours and Car Miles 285
Statement of Car and Bus Mileage, Car and Bus Hours Operated and Total Passengers Carried 286
Comparative Statement Data 287
Cost Statement—Itemized Accounts, Street Car Operations Only 288
Cost Statement—Itemized Accounts, Bus Operations Only 290
Annual Report of Bureau of Claims 292
Annual Statement Complaints and Commendations 293
Comparative Statement Bad Order Cars Turned In 293
Bus Routes in Operation June 30, 1941 294
Mileage—Single Track, June 30, 1941 297
Miles, Routes and Route Mileage 297
Chronology 298

ILLUSTRATIONS AND DIAGRAMS

Page

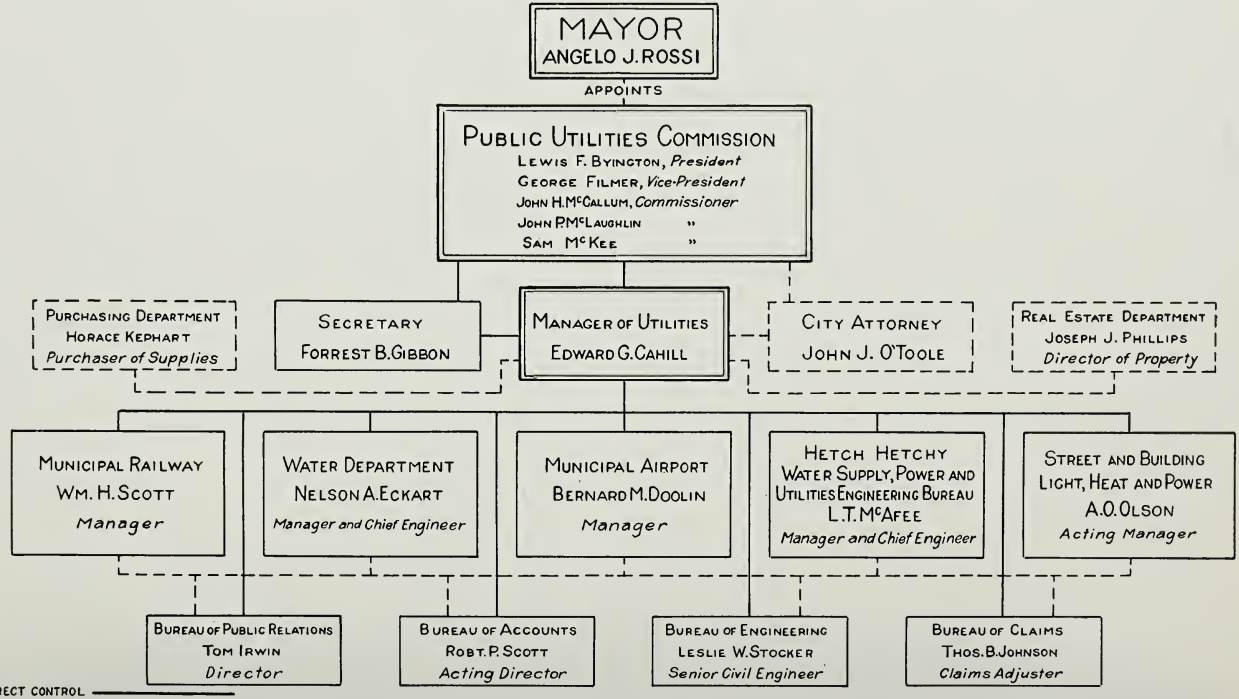
Treasure Island ..... Frontispiece
Public Utilities Organization Chart xvi
Public Utilities Commission—
Lewis F. Byington, President 2
George Filmer, Sr., Vice-President 2
John P. McLaughlin, Commissioner 3
John H. McCallum, Commissioner 3
Sam McKee, Commissioner 4
Edward G. Cahill, Manager of Utilities 4
Forrest B. Gibbon, Executive Secretary to Manager 5
John J. Sharon, Secretary of the Commission 5
Black Point Pumping Station 10
N. A. Eckart, General Manager and Chief Engineer, San Francisco Water Department 11
Chart—San Francisco Rainfall 14
Calaveras Spillway—Model 18
Calaveras Spillway—Prototype 19
Calaveras Spillway 24
Central Pumping Plant 28
Portable Chlorinator 31
Sunset Reservoir 33
Chart—Calaveras Reservoir 37
Chart—San Andreas Reservoir 40
Chart—Lower Crystal Springs Reservoir 42
Chart—Water Consumption and Population of Area Served 44
Chart—Water Delivered at Consumers' Meters—Number of Active Consumers 48
Chart—Water Sales 51
O'Shaughnessy Dam Spillway 96
L. T. McAfee, Chief Engineer and Manager, Hetch Hetchy Water Supply, Power and Utilities Engineering Bureau 97
Early Intake Diversion Dam 104
O'Shaughnessy Dam Spillway—Reservoir View 107
Moccasin Power House 111
Generator Bank at Moccasin Power House 113
Trolley Coach Shops 116
O'Shaughnessy Dam—Upstream View 118
Air Terminal Building—Treasure Island 120
Red Mountain Bar Siphon 153
Polk Street Lighting—City Hall View 176
Assembling Luminaries 178

ILLUSTRATIONS AND DIAGRAMS—Continued

Page

Erecting Electroliers 180
Maiden Lane Lighting 183
Special Improvement Street Lighting Design 185
Housing Project Lighting—Sunnydale and Potrero Hill 186
Lakeside Subdivision Lighting 189
Ninth Street Before and After Relighting 190
Fourth Street—Day and Night Views 191
Aquatic Park—Single-light Concrete Standards 192
Special Traffic Safety Lighting 193
Pictorial Chart—Distribution of the Tax Dollar 195
Pictorial Chart—Additions to Street Lighting System 197
Pictorial Chart—Light, Heat and Power for All Municipal Functions Except Street Lighting 199
San Francisco Airport—From Administration Building 202
B. M. Doolin, Manager, San Francisco Airport 203
Administration Building, San Francisco Airport 204
Night Flight 206
Lobby and Ticket Counter, Administration Building 208
Teletype Communication Room 210
Forecasting Center 212
Control Tower 214
T. W. A. Facilities 216
Chart—Comparative Traffic Figures 221
Pan American Airways System 223
Chart—Airways Facilities in the United States 227
Twin Funnels—The Two San Francisco Bridges 240
William H. Scott, Manager Municipal Railway 241
Seventeenth Street Ramp 242
Inspection Pits 244
Inspection Platform 244
New Trolley Coaches 246
Trolley Coach Terminal 248
Seventeenth Street Addition 249
Waiting Station 250
New Motor Coach 252
Rolling Stock Inspection 254
Chart—Bureau of Claims Analysis of Accidents 256
Chart—Average Daily Passenger Travel 258
Chart—Daily Revenue and Operating Expenses 260
Chart—Total Travel by Fiscal Years 260

San Francisco Public Utilities Commission
Organization Chart



REPORT OF THE
SAN FRANCISCO PUBLIC UTILITIES COMMISSION

General:

San Francisco's publicly-owned utilities will have been under the management and direction of the Public Utilities Commission for 10 years on January 8, 1942. During that period there has been a record of steady growth and progress and of increased service to consumers.

Although revenues and passenger volume of Municipal Railway showed a slight decrease from the previous year when the Golden Gate International Exposition had a longer season, both were still the highest of record during any other years. All other departments continued to reach new records and to continue their expansion to meet increased consumer demands.

As was the case in the previous year, principal difficulties confronted by the commission were in the field of litigation—particularly with reference to disposal of Hetch Hetchy power.

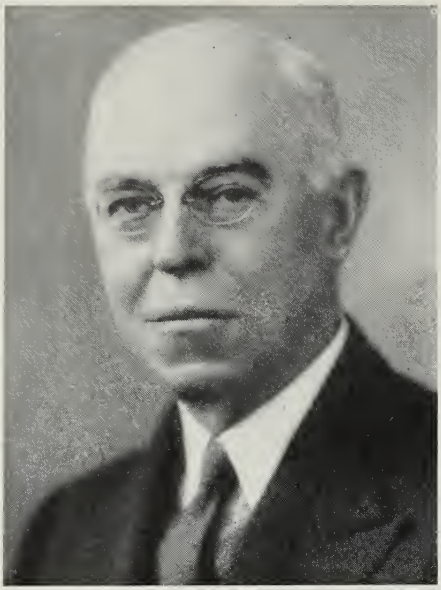
Water Department:

Net water sales for the fiscal year amounted to $7,311,352, an increase of $46,166, or .64 per cent over the previous fiscal year. This record was made in spite of the fact that an abnormally wet season reduced the average consumption in the residential and suburban districts. A new high record was reached in the number of active consumer accounts, the addition of 3769 such accounts bringing the total to 124,598.

The gain in water sales was accompanied by a comparable gain in water consumption, which averaged 68 million gallons daily, a gain of .8 per cent. The rapid shift of population from apartments and flats to private dwellings continued—a trend which was reflected both in new consumer accounts and in increased residential consumption.

Need continues for development of additional and improved facilities for transporting water from Peninsula reservoirs to these rapidly expanding residential communities in the higher elevations.

Heavy rainfall resulted in a decrease in the delivery of Hetch Hetchy water and in the early overflow of the various reservoirs. Maintenance of a high level of Crystal Springs reservoir was thus made possible. Meanwhile, replenishment of the underground supplies which feed the Pleasanton wells rose so rapidly that artesian flow recommenced and pumping was discontinued.



LEWIS F. BYINGTON
President

Work of the water purification division continued and was marked by an incident in which it was able to render unusual service to the management and patrons of Golden Gate International Exposition. A fire on August 24 in the California building involved the accidental intrusion of salt water into the domestic pipe lines, resulting in general pollution of the island's water supplies. The division's portable chlorinating unit was called into service and through prompt action, the water was thoroughly treated and a temporary closing of the Exposition was prevented.

Plans and specifications for 48 contracts were prepared by the engineering division requiring expenditures of $243,919.60. Engineering, supervision and inspection services were furnished on 52 jobs, totaling $216,153.29. Plans and specifications are also being prepared for installation of a complete irrigation system on certain Sunol lands, including the walnut orchard, which, it is believed, will make material increases in revenues. Due to the lack of such a system, the walnut orchard yield during the past fiscal year was the lowest in a decade.

Municipal Railway:

In its twenty-eighth year of operation, Municipal Railway carried 108,822,011 passengers, the second highest number in its history, and enjoyed revenues that were greater than any other years with the exception of the 1938-40 period when the Golden Gate International Exposition was in progress. Passenger revenue amounted to $4,057,698, as compared with $4,135,903 and $4,107,365 for 1938-39 and 1939-40, respectively.

Due, in part, to rising costs of labor and supplies, the net profit was reduced to $165,860. This reduction in profits was also in part due to a con-

GEORGE FILMER, SR.
Vice-President

siderable increase in service, largely through the addition of new motor coach routes. Street car operations for the year showed a net profit of $275,589 but this was in part offset by a loss of $109,729 by bus operations. A decrease in the railway's gross revenue was, of course, in part responsible for the decline in net profits.

The four new motor coach lines placed in operation during the year produced gross revenues of $114,246. They serve the outer Mission, central Mission, Sunset and Buena Vista Park districts. Ten new motor coaches were purchased to put these new lines into service and two old coaches were replaced, bringing the total fleet in operation to 41.

Although no new major appropriations for other new equipment or new extensions were made during the year, the funds previously held up for establishment of the Howard Street trolley coach line were released by withdrawal of the Luther Putnam suit. This permitted completion of overhead structures and purchase of nine trolley coaches, together with enlargement of the Seventeenth Street storage facilities.

JOHN P. McLAUGHLIN
Commissioner

JOHN H. McCALLUM
Commissioner

The Railway again paid $100,000 toward bond redemption, bringing its indebtedness down to $1,200,000, which is to be paid off during the next 12 years at the rate of $100,000 annually.

Maintenance of the 5-cent fare with free transfer privilege has once again afforded patrons a huge saving in transportation costs without having to resort to taxes to make up the deficit. The average fare throughout the United States for street cars and coaches is 8.33 cents, which means that San Francisco patrons of Municipal Railway saved $2,700,000.

Car and motor coach hours for the year amounted to 1.064,439, while mileage was 10,266,038. Both these were the greatest in the railway's history.

SAM McKEE
Commissioner

Total income of the Railway since its inception twenty-eight and a half years ago has amounted to $91,755,652, which includes the sale of $5,481,000 worth of bonds, $1,568,262 contributed and $673,262 in interest received on bonds owned and cash balances. Total passenger revenues for the period have been $83,640,726. Road and equipment on hand and in use at the close of the fiscal year were valued at $10,912,669.

Net savings on budget estimates for the past year amounted to $105,541, which was partially accounted for by economies resulting from a power saving campaign and less accident claims attributable in part to a traffic safety program.

Airport Development:

Record-breaking activities continued at San Francisco Airport, marking it as one of the principal commercial aviation centers of the nation. The increase in traffic volume was considered all the more remarkable because of the fact that the previous year had also set new all-time records.

Airline passengers in and out of the airport during the year totaled 179,420 as compared with 126,546 the previous fiscal year. This was an increase of 42 per cent over the previous year's total, which had already shown a 60 per cent growth over the year before.

Arrivals and departures of airline planes totaled 24,422 as compared with 17,797 for the previous year, an increase of 37 per cent over the preceding period, which had been 43 per cent above the year before.

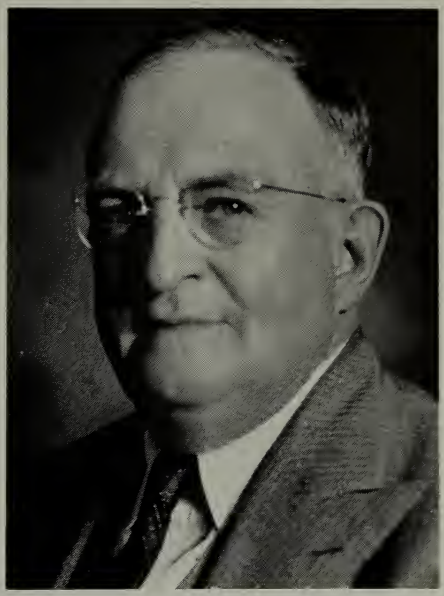
Airmail poundage in and out totaled 1,644,682 pounds, establishing a new all-time high and representing an increase of 25 per cent over the previous fiscal year. Air express pounds out amounted to 262,098, which was an increase of 52 per cent over last year.

Establishment of United Air Lines Western Division headquarters at the

E. G. CAHILL
Manager of Utilities

airport was the outstanding development of the year. Construction of the new base, which will include an administration building, hangar and shop annexes, engine test building and oil storage depot, will cost approximately $1,000,000. At the outset, it will bring to the community a new annual payroll of $1,500,000 to a staff of 600 employees. The base occupies 15 acres of airport property located at the northwest corner of the field.

The U. S. Coast Guard base, which was nearing completion at the close of the fiscal year, was put into operation during the Fall of 1940 and was formally dedicated on February 15, 1941. It is now staffed by 60 officers and men and has three amphibian planes in use for search, patrol and rescue work. The channel from the hangar to the seaplane harbor has been dredged out to a depth of 10 feet below mean tide and is lighted for a distance of 7500 feet.



FORREST B. GIBBON
Secretary to Manager

JOHN J. SHARON
Secretary of the Commission

Expansion of the airport proper is now virtually complete, including extension and paving of the main runways and reclamation of a 300-acre area along the eastern section of the field.

In May, 1941, the United States Weather Bureau moved its main San Francisco Bay area forecast center to the airport administration building, where it occupies half the floor space of the mezzanine floor. The new consolidated agency has an expanded personnel of 24.

Scheduled for completion in August was a new radio range station which will make possible safe landings under conditions of poor visibility. The innovation will minimize the landing of transports at alternate airports as a precautionary measure.

Treasure Island, the City's future second air terminal, is now under joint use by Pan-American Airways and the United States Navy. During the period

of its occupancy, the Navy has sponsored extensive improvements and developments so that when the island reverts to the control of the City it will be nearly ready for use for airport purposes.

Hetch Hetchy Water Supply:

Due to exceptionally high rainfall during the winter, less Hetch Hetchy water than usual was brought down to augment the local supply. The delivery was approximately seven and a half billion gallons, bringing the total delivery since the properties were placed in operation in 1934 to 67,628,700,000 gallons.

Hetch Hetchy Water Rights and Litigation:

The City has taken appeal from a portion of the judgment in the Dan Williams case in an effort to show that plaintiffs do not have riparian rights superior to the appropriative rights of the City. Meanwhile, relations with the Modesto, Turlock and Waterford Irrigation Districts remained mutually satisfactory, there having been stipulated a 15-year period during which all court actions previously instituted were to be held in abeyance.

Preliminary surveys and development of the Cherry River watershed continued in order to guarantee to the City for the future the availability of this site as a source of additional water and power.

At the same time, the City was awaiting a decision from the referee in the Transbay Construction Company case, who brought suit for damages in connection with their contract for the heightening of O'Shaughnessy Dam.

Hetch Hetchy Power Disposal:

Efforts continued to solve the problem of power disposal, a condition that had arisen through court determination that San Francisco was in violation of the Raker Act in its agency agreement with the Pacific Gas and Electric Company.

Various stays of execution of the restraining order made it possible to continue to enjoy the revenues from this sale of power and at the same time negotiations began for a terminable lease of P. G. and E. electric distribution properties in San Francisco.

A lease proposal known as "Plan C" was submitted to the Secretary of the Interior July 23, 1940, but failed to obtain his approval. Another stay of the injunction was obtained and another lease plan known as "Plan E," which was believed to meet most of the objections raised by the Secretary against the previous plan, was submitted on November 25, 1940. Tentative approval pending preparation of the complete lease agreement was given on December 3.

After many months of negotiations between the Manager of Utilities and executives of the P. G. and E., the formal proposal under Plan E was submitted to Secretary Ickes, who called a special hearing on May 21, 1941, in Washington, D. C., before deciding on the matter. Again his decision was adverse and this left the City, about to enter a new fiscal year, without any provision to meet the loss of $2,400,000 in power sale revenues.

In order to meet this situation, the City agreed to a series of stipulations set forward by the Secretary of the Interior in exchange for another stay of the injunction to June 30, 1942. Among these stipulations were agreements not to seek amendment of the Raker Act, to submit and press a revenue bond proposition at the next regular election for municipal distribution of power and to refrain from seeking any further extensions of the effective date of the injunction.

The effect appeared to be that the City would either have to begin municipal distribution of power over its own system or else shut down the Hetch Hetchy generating plants, thus sacrificing much-needed revenue.

Street Lighting Construction:

Additions valued at $103,258 made to the city-owned street lighting equipment during the year brought the total value up to $1,156,582. These additions included $42,082 worth of improvements installed by owners and deeded to the City and improvements valued at $49,916 installed by city-sponsored W. P. A. projects.

Plans and specifications for street lighting improvements to cost in excess of $250,000 were completed during the year.

Cost of street lighting operations for the period was $780,130.33, which reflects the increase in the number of installations. At the close of the year there were 24,504 lights in service on the streets, an increase of 1128 or 4.8 per cent. Of the total, 20,856 or 85.11 per cent, are owned wholly or in part by the Pacific Gas and Electric Company. The remainder are owned outright by the City.

The Street and Building Lighting Bureau, which has supervision of the above and use of gas and electricity for municipal heating purposes, made constant checks and surveys throughout the year with a view to effecting economies in application of rates.

Commission Personnel:

On January 20, 1941, the Commission unanimously reelected President Lewis F. Byington and Vice-President George Filmer to serve their tenth consecutive one-year terms in these offices. Both have served in their respective posts since the organization of the commission January 8, 1932.

On May 14, 1941, Mayor Rossi appointed Sam McKee as commissioner to fill the vacancy created by the death of Commissioner John P. Murphy on June 4, 1940.

The Commission records here with extreme regret the death of its veteran secretary and auditor, John J. Sharon, on May 17, 1941. Reference to Mr. Sharon's record and long association with the San Francisco Water Department and its predecessor, the Spring Valley Water Company, will be found on the first page of the report of the Water Department.

General Office:

The Public Utilities Commission held 56 meetings during the fiscal year, in the course of which it adopted 604 resolutions and awarded 58 contracts for work

costing $1,392,288.98. Contract payments approved during the period amounted to $371,999.98. At the same time, it accepted as completed 41 contracts and leased 34 parcels of property.

Audits:

Certified public accountants, under direction of the Controller, make annual audits of the books and accounts of the various utilities under the jurisdiction of the Commission. The accounting bureau of the Commission and of the Controller's office also maintain surveillance over the budgetary and bond expenditures of the utilities.

In succeeding sections of this report will be found more detailed accounts of the activities of the several departments and bureaus under the Commission's jurisdiction.

IN THE BEGINNING

This vine-covered brick stack is all that remains of the old Black Point Pumping Station, which served the City from 1858 to 1929.

SAN FRANCISCO WATER DEPARTMENT

N. A. ECKART

General Manager and Chief Engineer

N. A. ECKART
General Manager and Chief Engineer

Net water sales for the fiscal year ended June 30, 1941, amounted to $7,311,352, an increase of $46,166, or .64 per cent, over the preceding year. This increase is less than normally expected due to several factors, an abnormally rainy season, tending to reduce suburban and residential consumption; shrinkage of commercial sales, which includes hotels and apartment houses undoubtedly affected by the close of the exposition; and failure of the industrial consumption to register a gain, probably reflecting a lag incident to a switch from normal activities to defense work. The number of active consumer accounts increased by 3,769 to a total of 124,598 as of June 30, a gain somewhat better than normal, reflecting the great activity in residential construction. Paralleling the small gain in water sales, water consumption for the system averaged 68 m.g.d., a gain of 0.8 m.g.d. over the previous year.

No major additions to the system were made during the year. The need for increased facilities for transporting water from the Peninsula reservoirs to the higher distribution districts in the city continues to demand attention.

Prospects for a good walnut crop this year appear favorable.

The passing of our beloved Auditor, John J. Sharon, Secretary of the Commission, identified with the water system under Spring Valley and the City since 1898, leaves an unfilled void, which it is fitting that we here refer to. Entering the service as timekeeper, he successively handled assignments as Assistant Superintendent of the City Distribution, Assistant Engineer, Assistant to the Manager and Assistant Secretary, Secretary and Auditor, all under Spring Valley; upon the City taking over, he continued as Auditor of the Water Department and later, in addition to these duties, he was appointed first, as Assistant Secretary of the Commission, later Secretary; also, as Director of the Bureau of Accounts he was in charge of accounting for all of the municipally-owned utilities.

WATER PRODUCTION

General Operation:

The Water Production Division continued to operate substantially as outlined in previous reports, with deliveries from local water department sources being

supplemented by water drawn from the Hetch Hetchy system as needed to maintain reserve storage or to supply consumers served from the Bay Division pipe lines during periods of excessive turbidity of local waters.

Local sources produced 21,218 million gallons of water during the year. The Hetch Hetchy system delivered an additional 7,516 million gallons, making a total input to the system of 28,734 million gallons. This was accounted for as follows:

To supply consumers	24,825,000,000	gallons
To Alameda County Water District	3,143,000,000	"
To increase local reserve storage	766,000,000	"
Total	28,734,000,000	gallons

The Hetch Hetchy delivery averaged 20.6 million gallons daily for the year. Thirty per cent of this delivery was made between August 21 and November 7, during which time an average of 31 m.g.d. was delivered into Crystal Springs reservoir. No delivery from Hetch Hetchy was made between November 8 and December 29 in order to reserve local storage capacity in anticipation of the winter run-off. The prolific local run-off during the winter season was such that additional delivery from Hetch Hetchy would have been unnecessary were it not for the fact that the floodwaters made Calaveras Reservoir so turbid as to make the water from that source unfit for direct consumption, so that delivery from Hetch Hetchy was resumed on December 30 to supply consumers served from the Bay Division pipe lines and continued to May 28. Delivery during this period averaged 32 m.g.d., about one-half of which was brought across the bay. No delivery was made after May 28. Up to June 30, 1941, the total delivery from Hetch Hetchy since completion of the aqueduct in October, 1934, has amounted to 66,583 million gallons, or an average of 27 million gallons daily.

The demand on water resources to meet consumption requirements for the year averaged 68 million gallons daily, an apparent decrease of .6 m.g.d. from the previous year. However, analysis of the Venturi meter records indicates that this apparent decrease was due to a discrepancy in certain recording devices and that actually there was a small increase in consumption. Water sales for the year indicate an increase in consumption of .5 m.g.d. in the suburban area and .3 m.g.d. in the city, making a total indicated gain of .8 m.g.d.

All water for distribution in San Francisco was, as usual, supplied entirely from the San Andres and Crystal Springs reservoirs in San Mateo County. The San Andres reservoir was replenished with water from the Pilarcitos reservoir, local run-off and water pumped from the Crystal Springs reservoir.

The Crystal Springs reservoir was replenished from local run-off and with water drawn from the Calaveras reservoir in Alameda and Santa Clara counties and from the Hetch Hetchy system in the Sierra Nevada Mountains.

Suburban consumers were supplied in much the same manner as for the past several years.

The peninsula consumers north of Redwood City were supplied from the transmission mains leading from the Crystal Springs and San Andres reservoirs to San Francisco. Peninsula consumers from Redwood City south were supplied from the Bay Crossing and Palo Alto pipe lines with Calaveras and Hetch Hetchy water. Consumers on the west side of the bay were furnished water from several sources—Pleasanton Wells, Calaveras reservoir, Sunol filter beds and Hetch Hetchy.

Rainfall Catchment and Storage:

The past winter's rainfall on the local watersheds was approximately 25 per cent above normal and at the end of the run-off season all reservoirs were filled to the point of overflow with Calaveras, Crystal Springs and Lake Merced reservoirs actually spilling. The seasonal gain in storage from a low point of 43,989 million gallons on December 29, 1940, to an all-time high of 61,003 million gallons on April 6, 1941, was 17,014 million gallons. Surface storage on June 30, 1941, was 55,555 million gallons, which was slightly in excess of that of the preceding June 30.

In addition to this surface storage, the gravel basin underlying the Pleasanton well fields was, for the fourth consecutive year, replenished to such point that artesian flow occurred from wells in the lower end of the valley. Also the "advance release" to the Alameda County Water District was increased by 3,143 million gallons to a total of 21,134 million gallons, all of which is recoverable by the water department should any emergency in the future make such recovery necessary.

Transmission:

San Francisco water consumption required an average daily delivery of 60.7 million gallons into the City distributing system. Of this amount, an average of 20.7 m.g.d. was delivered into University Mound reservoir through the two Crystal Springs pipe lines, of which amount 19.3 m.g.d. was from Crystal Springs and 1.4 m.g.d. from San Andres. An average of 35.4 m.g.d. was transported from San Andres through the San Andres 54-inch and College Hill 30-inch pipe lines to supply the Lake Honda, Sunset, College Hill, Stanford Heights and Merced Manor reservoirs. An average of 1.6 m.g.d. from San Andres and 3.0 m.g.d. from Crystal Springs was delivered to Central pumps, through the Baden-Merced pipe. This latter procedure of supplying Central pumps from Crystal Springs has been followed since last fall when the 30-inch cross connection between the Crystal Springs No. 2 pipe and the Baden-Merced pipe was installed.

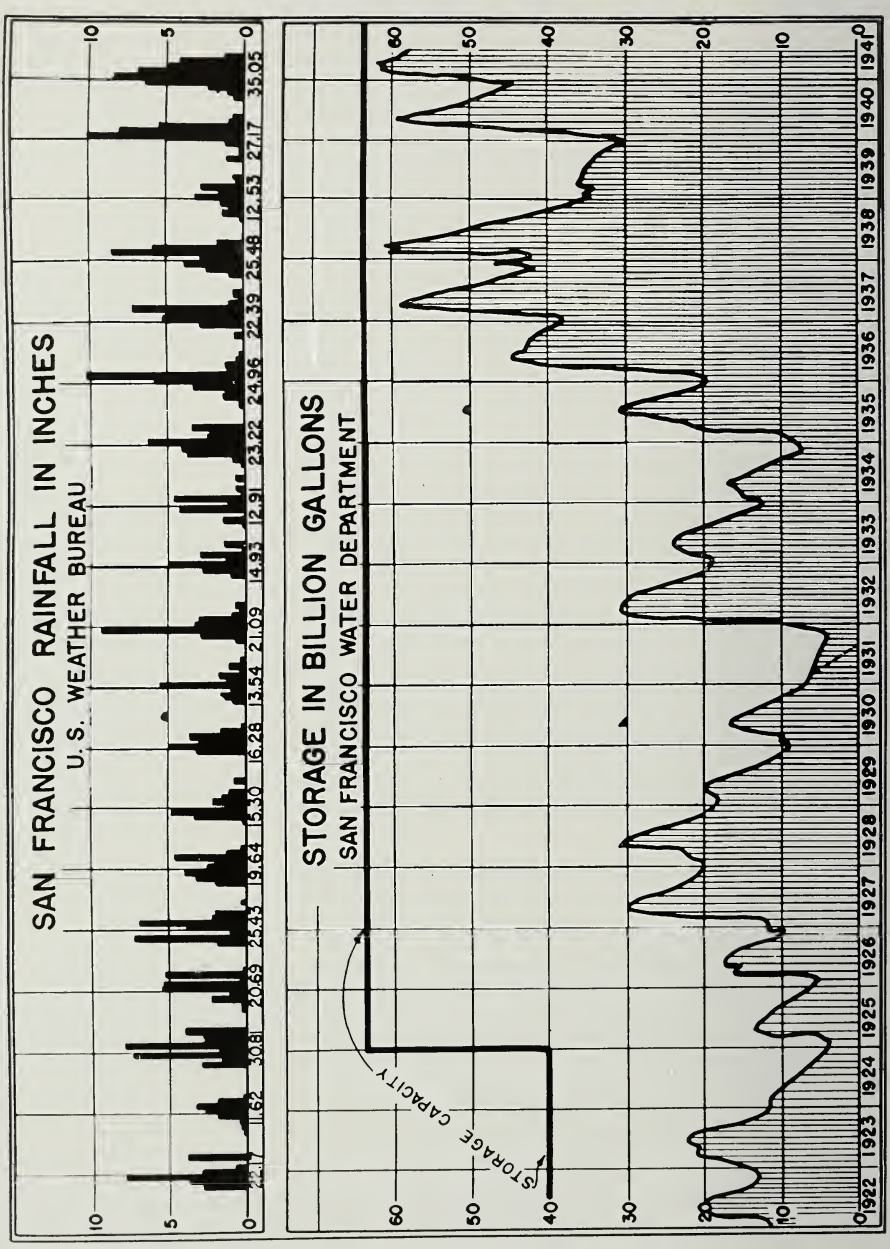
The suburban consumption averaging 7.3 million gallons daily was supplied directly from the several transmission and supply lines at various points throughout the system.

An average of 21.4 million gallons daily was pumped from the Crystal Springs reservoir into the Crystal Springs aqueduct for delivery to the San Andres reservoir.

The two Bay Crossing pipe lines carried an average of 43.1 million gallons daily across San Francisco bay. Of this quantity, an average of 3.3 million gallons daily was delivered to consumers served from these lines and the balance, averaging 39.8 million gallons daily, was delivered into the Crystal Springs reservoir. The Hetch Hetchy aqueduct supplied an average of 11.9 million gallons daily of the total, and the Calaveras pipe line supplied the other 31.2 million gallons daily.

Reservoirs:

The Calaveras reservoir reached a low stage for the year of 17,935 million gallons storage on December 21, and was filled to the maximum capacity of 31,569 million gallons on February 17, 1941. The run-off from continued rains caused the reservoir to spill from February 17 to March 19, and again from March 30 to


SAN FRANCISCO RAINFALL IN INCHES
U. S. WEATHER BUREAU
10
5
0
22.17
11.62
30.81
20.69
25.45
19.64
15.30
16.28
13.54
21.09
14.93
12.91
23.22
24.96
22.39
25.48
12.53
27.17
35.05
STORAGE IN BILLION GALLONS
SAN FRANCISCO WATER DEPARTMENT
STORAGE CAPACITY
60
50
40
30
20
10
0
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941

April 18. The peak amounts of spill were limited to a certain extent by closing the Upper Alameda tunnel and by releasing water through the needle valve during the period of heavy run-off. The maximum depth of flow over the lip of the spillway was 26 inches on March 4, corresponding to a discharge of approximately 1,500 cubic feet per second.

The new spillway stilling basin, completed in February, 1940, handled the spill easily and gives promise of conforming to designed performance when larger flows are experienced.

The lake was given a bluestone treatment to retard algae growths in May, 1941. Fifteen tons of copper sulphate were used, giving a dosage of one pound per million gallons.

Further repairs were made to the 16-inch regulating valves on the aerator header lines and the header lines were scraped and painted. The interior of the keeper's cottage was renovated and new lighting and plumbing fixtures were installed. A new boathouse was built to shelter the new launch as well as the old one. The old warehouse at the top of the grade was torn down and the corporation yard was cleaned up. The 19-foot culvert was cleaned out and considerable cleaning up and leveling off was done on the downstream slopes and below the dam to improve drainage as well as the appearance of the structure. Driftwood and brush were cleared and burned around the edges of the lake.

As referred to in the last report, grouting operations along the west abutment of the dam carried out two years ago during the spillway reconstruction had little effect on seepage into the 8-foot outlet tunnel, which occurs at higher stages of water in the reservoir. Further geologic surveys made during the past spring indicate that deeper and more extensive grouting than that done two years ago is necessary to seal this off. Funds for this will be requested in the next budget.

The Crystal Springs reservoir was maintained at a high level throughout the year, the minimum storage being 17,107 million gallons on December 20. A peak storage of 19,696 million gallons was reached on April 4, 1941. A total of 14,509 million gallons of Hetch Hetchy and Calaveras water was delivered to Crystal Springs during the year. The Hetch Hetchy delivery was discontinued on November 7 in order to conserve storage space for the local winter season run-off.

Rainfall on the Crystal Springs watershed for the past season was approximately 30 per cent above normal and the correspondingly large run-off caused the reservoir to spill intermittently between January 28 and May 28. The spill, totaling 1,632 million gallons, was controlled by use of flashboards so as to avoid excessive discharge down San Mateo Creek during flood peaks.

Unseasonal algae growths necessitated an unusual number of bluestone treatments for both of the Crystal Springs lakes. A total of 45 tons of copper sulphate was used to give the lakes five treatments each. The dosages, averaging one pound of copper sulphate to each million gallons of water in storage, were given in July, December, January, February, and May.

Some further improvements were made at the Pulgas temple. The interior of the reflection pool was painted green and a small filter was installed to clear the water pumped into the pool. A low rock wall was built along the edge of the parking area to protect trees and shrubbery planted there and to improve the drainage system.

The San Andres reservoir was kept nearly full throughout the year except for lowering during the late fall to provide storage space for the winter run-off.

Minimum storage for the year was 5,602 million gallons on January 13 and a maximum of 6,180 million gallons was reached on March 3 with the water just starting to seep over the spillway lip. Run-off from the above-normal and prolonged rainfall of the past season maintained the lake at a high level with no necessity for pumping from Crystal Springs until near the end of May. A total of 7,800 million gallons of water was pumped from Crystal Springs into San Andres during the year. Storage at June 30, 1941, was 5,399 million gallons.

The lake was given two bluestone treatments, one in November and the other in April. A total of 12,700 pounds of copper sulphate was used and the doses averaged one pound per million gallons of water in storage.

The keeper's cottage at the San Andres dam was repaired and redecorated throughout. All of the young pine trees on the east slope of the reservoir became diseased and considerable pruning was necessary to save them.

Seasonal rainfall at the Pilarcitos reservoir was 54.57 inches, the highest recorded since the season of 1903-04. While this total for the season was 8.48 inches above normal, the intensity of the rainfall was not heavy and all run-off was controlled in the reservoir and through the outlet gates with no waste over the spillway.

The Pilarcitos reservoir was lowered to a minimum storage for the year of 347 million gallons on January 19 and a peak storage for the year was reached on April 5 with 916 million gallons. Storage at June 30, 1941, was 479 million gallons. This reservoir supplied 2,427 million gallons of water to San Andres during the year.

The lake was given two bluestone treatments, one in November and the other in April. A total of 1,350 pounds of copper sulphate was used and the doses averaged one pound per million gallons of water.

The keeper's quarters at Pilarcitos were improved by the installation of new kitchen and bathroom fixtures and a tank-gas stove to replace the old coal and wood range.

The usual amount of fire-guarding, road maintenance, fence repairing and cleaning up was done throughout the watershed areas.

Pump Operation:

One pump was operated at the Pleasanton wells to supply the Sunol consumption for the first 4½ months of the fiscal year. The pump was shut down on November 18, 1940, when the artesian flow again attained sufficient proportions to supply this consumption. The artesian flow continued in sufficient quantity so that it was not necessary to resume pumping during the balance of the fiscal year.

For the second successive year, no pumping was done at the Pulgas station on the Bay Crossing pipe line as all of the water gathered at the Sunol filter beds was either delivered to local consumers or made available for "advance releases" to the Alameda County Water District. A general subsidence of the ground in the vicinity of the pump station and cottage made it necessary to build a small levee to keep tidewater from overflowing this area. On two occasions during the past year the road leading to the station was flooded to such depth as to make automobile travel impossible.

The Belmont pump station was maintained in good condition, though it is probable that these pumps will never be used again. The exterior of the caretaker's house and other buildings were repaired and painted.

The Crystal Springs pump station contains four electric pumping units. Three of these units, with a combined capacity of 49 million gallons daily, are used to boost water to San Andres reservoir, and the fourth is connected for boosting on the Crystal Springs pipe line when necessary to increase the delivery to University Mound. This latter pump has not been used since completion of the new pipe line to University Mound in 1937, and probably will not be needed again for many years to come.

During the past year one of the San Andres units was operated for 216 days, a second for 184 days, and the third for 32 days. All three pumps were shut down for a period of 149 days from December 28 to May 25 during which time the San Andres reservoir storage was maintained by local run-off and gravity delivery from Pilarcitos. A total of 7,800 million gallons for an average of 21.4 million gallons daily was pumped from Crystal Springs to the San Andres reservoir. This quantity was 7.2 million gallons daily less than that pumped during the previous year. The decrease was accounted for by the heavy run-off of the past winter and by supplying Central pumps for part of the year with water directly from Crystal Springs, rather than as formerly from San Andres.

This method of supplying Central pumps directly from Crystal Springs saves the cost of pumping this 8 to 10 m.g.d. of water into San Andres reservoir. However, the saving is partially offset at Central pumps by the increased cost of pumping with the lower supply line pressure from Crystal Springs. The net saving, however, will approximate $10,000 per year.

Testing and replacing of faulty insulators on the 60 k.v.a. power line, which work was begun during the preceding fiscal year, was completed. It was found necessary to replace 60 per cent of the insulators, many of which dated back to the original installation in 1913.

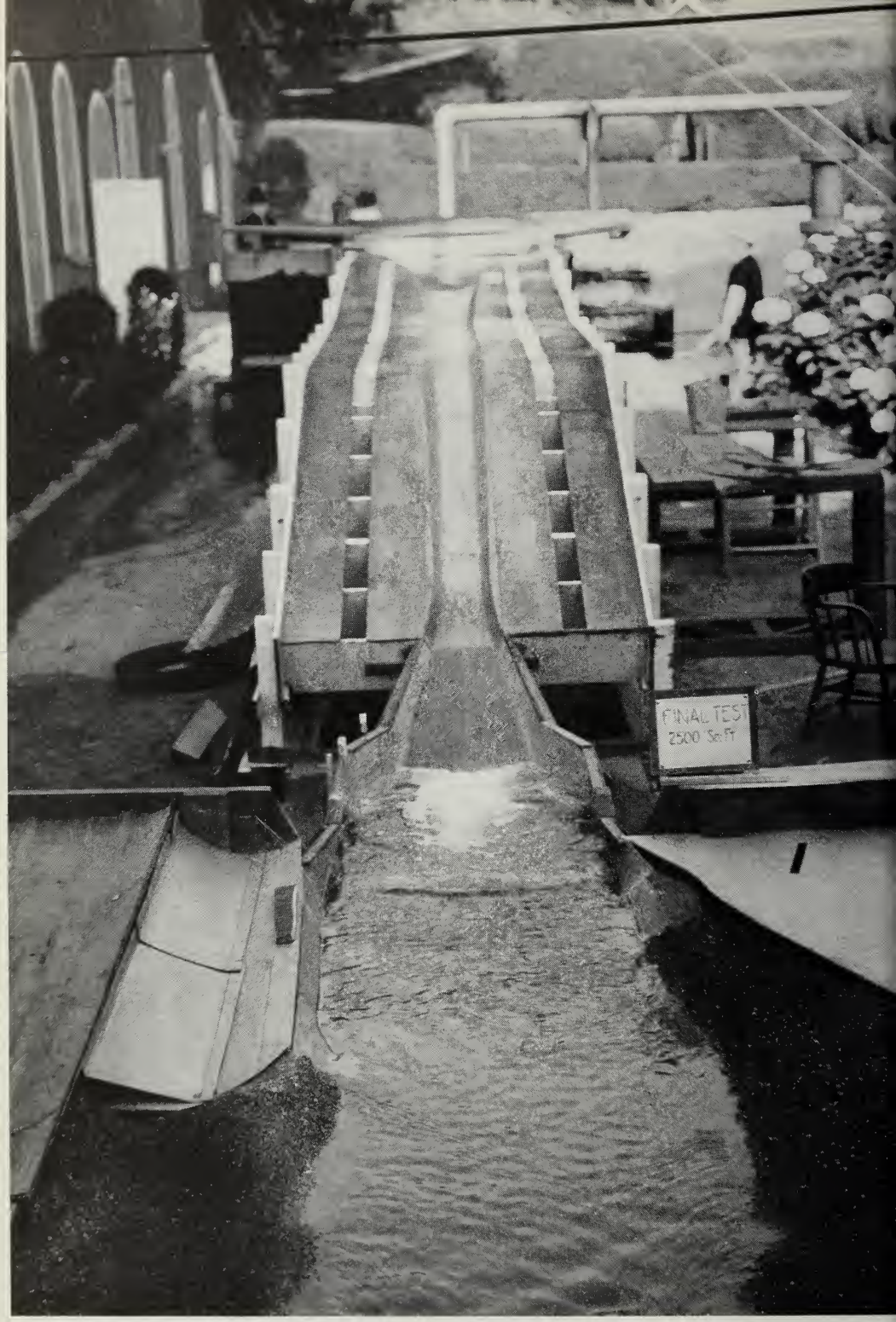
Pipe Lines:

All water brought through the various transmission pipe lines during the year was treated either with chlorine alone or with both chlorine and ammonia. All water delivered through the Calaveras pipe line was aerated in addition to receiving the chemical treatment.

The Pleasanton pipe line delivered water from the Pleasanton wells to Sunol throughout the year. Two leaks were repaired and some guard fence was installed to protect the pipe in locations where it is exposed to damage.

The Calaveras pipe line delivered a capacity flow of 74 million gallons daily into the Hetch Hetchy aqueduct for the first two months of the fiscal year. From August 27 to December 31 the flow varied from 20 to 65 m.g.d. No delivery was made between January 1 and May 16, the Calaveras water being too turbid for direct consumption and Crystal Springs being in no need of replenishment. A delivery of 45 m.g.d. was resumed on May 17 and gradually increased to a near-capacity flow of 72 m.g.d. which was being maintained at the end of the year. The steel pipe trestles at the creek crossings were scraped and repainted.

The Niles-Irvington pipe line was utilized throughout the year to carry a reverse flow of about one-half million gallons daily from the Bay Crossing pipe lines to the Niles reservoir to supply potable water to consumers on this line.



CALAVERAS SPILLWAY—MODEL

The above picture shows model tests for the Calaveras spillway stilling basin.
On opposite page is actual structure.

CALAVERAS SPILLWAY—PROTOTYPE
This shows the actual structure in operation receiving a discharge of approximately 1500 second feet.

The old Alameda pipe line on the east side of the bay was used to deliver "advance releases" of water to the Alameda County Water District's absorption pit north of Centerville. Consumers formerly served from this line are now served by the Alameda County Water District, as a condition of the agreement providing for "advance releases" from the Water Department.

On the west side of the bay, the section of the Alameda pipe between Burlingame and Belmont was used to deliver water from Crystal Springs to local consumers and was operated with only routine maintenance.

Some further repairs were made to the trestle bents on the No. 1 Bay Crossing pipe line between Newark and Dumbarton and painting of the pipe on the trestle, discontinued due to a lack of funds during the preceding year, was completed. The split saddles under the pipe on the bay bridge were removed, and the supporting beams and bottoms of the pipe were cleaned and painted.

Five leaks due to electrolytic action developed in the No. 1 line east of Newark. A second cathodic corrosion eliminator was installed at this point and subsequent coupon tests indicate a considerable reduction in the flow of electric current. Two leaks occurred in this line on the west side of the bay, one being in the Kavanaugh property near Ravenswood and the other on Jefferson Avenue in Redwood City, where the pipe was found to be badly pitted from electrolytic action.

Markers were set every thousand feet and monuments were installed at all angle points on the Bay Division right of way from Ravenswood to Whipple Road. Grass was cut and in some places plowing was done to prevent fires. The large number of new homes being built in this vicinity is necessitating a constantly increasing amount of work on this section of right of way.

The Palo Alto pipe line delivered an average of 1.8 million gallons of water daily to consumers south of Redwood City. The maximum week's demand on this line averaged 3.2 million gallons daily. A slight settlement over the pipe in the Southern Pacific reservation at Menlo Park was repaired and resurfaced.

Both Crystal Springs pipe lines were in service throughout the year in transporting water to University Mound, excepting the period December 14 to February 5, when the section of No. 2 line from Crystal Springs to Millbrae was used only to supply consumers served directly from it. During this period of time the No. 2 line to University Mound received its supply from the San Andres 54-inch line at Baden. This procedure was necessitated by a break in an 18-inch gate valve on the cross connection between the Crystal Springs No. 2 line and the Baden-Merced line at Baden. The broken valve was replaced with a new 20-inch valve that had been originally ordered for this installation but had not been installed due to delay in delivery. For the periods from November 14 to December 14, and from March 26 to the end of the fiscal year, the Crystal Springs No. 2 line supplied the Baden-Merced pipe with from 8 to 10 million gallons daily, thus relieving the overtaxed San Andres lines of this burden. Some further difficulty was experienced in getting consistent Venturi meter measurements of flow in these two lines.

The College Hill branch of the San Andres No. 1 pipe line was operated without incident as the flow was not allowed to exceed the 7.5 million gallons daily which past experience has demonstrated to be the maximum that can be safely delivered through this old line, which has been in service since 1870. The deficiency in delivery to College Hill was made up by transferring water from the San Andres 54-inch pipe through the Crosstown pipe. This method of operation cannot be continued indefinitely as the increasing water demands of the higher districts will

soon require the full capacity of the San Andres 54-inch pipe, thus eliminating this means of making up the deficiency in the supply to College Hill.

The San Andres 54-inch pipe line delivered water to Sunset reservoir throughout the year. It also met the deficiency at College Hill by diverting water into the Crosstown line and it supplied Central pumps during periods when the Baden-Merced pipe was shut down. The growing demands on this line keep it operating so close to its maximum capacity during the summer months that funds must soon be made available for a supplemental pipe line. For the third successive year, no new leaks were encountered in this line, but two old electrolysis leaks had to be replugged.

The Baden-Merced line was taken out of service, except to supply local consumers, on June 9, 1940, to permit its relocation through the State College property along 19th Avenue. Some 1,400 feet of 20-foot right of way through the college property was exchanged for 1,730 feet of 20-foot right of way closer to 19th Avenue. The cost of the pipe relocation was borne by the State. The line was returned to service on November 14, 1940.

Aqueducts:

The Sunol aqueduct was used throughout the year to transport water caught at the Sunol filter galleries to the Niles reservoir, from which point it was made available as "advance release" to the Alameda County Water District. No maintenance was required other than a small amount of fence repair and normal fireguarding.

Section No. 2 of the Stone Dam aqueduct remains out of service due to its deteriorated and slide damaged condition and all water caught above this section continues to flow into Crystal Springs reservoir. Replacement of this aqueduct would permit delivery of this water to San Andres reservoir by gravity and save the cost of pumping an equivalent amount from Crystal Springs.

The trestle and flume between Tunnels No. 1 and No. 2 of the Pilarcitos aqueduct is in a very deteriorated condition. Plans and specifications have been prepared for a concrete structure to replace the existing wooden one, construction of which will be commenced early in the coming fiscal year.

A section of the 36-inch concrete pipe at the Davis tunnel outfall was washed out during the heavy floods of the past winter. Repairs had not yet been made at the end of the fiscal year.

Peninsula General:

A report on the various acts and laws governing the special assessment districts of San Mateo County in which Water Department properties are located was compiled and referred to the City Attorney's office.

Aside from normal maintenance at the Aqua headquarters, plumbing in the men's quarters was remodeled and new showers were installed; tile drain pipe was laid to drain portions of the garden; new gas furnaces were installed in the superintendent's house and in the office; and new foundations were installed under the yard sheds to replace the old ones damaged by decay and termites.

The department's telephone system was maintained in good condition. Line No. 5, which includes all of the Alameda system, is now overloaded with extensions and it may be necessary to install a new circuit.

Alameda General:

Relocation of the state highway to a right of way through the department's corporation yard at Sunol necessitated the relocation of fences, the Sunol water supply pipe, the department's telephone line and the moving of considerable pipe and fittings stored in the yard. Bluestone, formerly stored at Sunol, was moved to a warehouse at the Calaveras dam.

The Temple and Bonita picnic grounds were cleaned up and maintained in good condition. These grounds were enjoyed by an unusually large number of picnickers during the year, with the Bonita grounds being used by groups of Boy Scouts on several occasions.

New gas furnaces were installed in the superintendent's and the assistant superintendent's cottages, to replace old wood furnaces.

A new Mack truck was purchased to replace an old Reo truck used by one of the maintenance gangs and a new road grader was purchased for use in the Alameda division.

Alameda County Water District:

A total of 3,219 million gallons of released water was absorbed into the underground gravels of the Niles Cone area during the year. Of this amount, 76 million gallons were due the district under terms of the 1920 award. The balance of 3,143 million gallons was furnished as "advance release" in conformity with the agreement of September 24, 1936, and brought the total of "advance releases" to 21,135 million gallons as of June 30, 1941.

Of the past year's release, 2,834 million gallons were delivered through the Alameda pipe to the district's absorption pit near Centerville, 43 million gallons percolated from water released into the creek at Niles reservoir and 342 million gallons percolated from water released into Alameda Creek from above the U. S. G. S. gauging station near Niles.

The delivery of water caught at the Sunol filter beds as "advance releases" to the district continues to be a mutually beneficial arrangement for both the district and the Water Department. The water table in the rich agricultural area comprising the district is maintained at the highest practicable level and the previously threatened salt water intrusion into the area is definitely checked. The Water Department is relieved of the expense of pumping this water into the Crystal Springs reservoir and at the same time is enabled to provide and maintain a large underground storage which, under terms of the agreement, may be drawn upon by the city in an emergency.

The district continued throughout the year to augment its domestic supply with water purchased from the department.

Pleasanton Township County Water District:

The department was obliged to pump its "Town Well" to supply the town of Pleasanton from July 3 to December 28, 1940, on which latter date the rising water table reached the point at which department's obligation ceased. No further pumping was required during the balance of the fiscal year.

For the third successive year, the high water table in the Hearst well made it unnecessary to furnish water at any time to the Hearst reservoir.

The water level in the pilot well governing reimbursement of pumping costs to landowners in the district reached the necessary height to relieve the department of this expense on April 21, 1941, and remained above this point for the balance of the fiscal year. This is the first time the water table in this pilot well has been above the designated level since the agreement with the district was entered into by the Spring Valley Water Company in 1918.

Outside Meters:

The number of suburban services at the end of the fiscal year showed a decrease of 18 to a total of 603. The decrease was due to a number of small services on the San Andres pipe line being discontinued when portions of Colma were incorporated into Daly City.

New services installed during the year included a 4-inch service at Millbrae Manor and an 8-inch service at Hillsborough for the California Water Service Corporation, and a 4-inch service for the Coast Guard Station at the San Francisco Airport.

CITY DISTRIBUTION DIVISION

Water Consumption:

The average daily consumption during the year was 68,014,627 gallons, a decrease of 561,780 gallons from last year, or .8 per cent.*

Within the city consumption again increased, the daily average consumption being 60,725 896 gallons, an increase of 1,155,459 gallons per day, or 1.9 per cent.

Consumption increased in every district except Lake Honda, where there was a decrease of 1.3 per cent. Increases in the several districts were as follows: 17.7 per cent in Merced Manor, the newest district; 6 per cent in Forest Hill; 5.2 per cent in University Mound, the industrial area; 2.6 per cent in College Hill, and 1.7 per cent in Stanford Heights.

General Operating Conditions:

During the year past, no changes were made in the manner of supplying water to the several sections of the City. The various units of the distributing system are in as good condition as their age will permit.

During the year there was a definite shortage of water in the Forest Hill district. In July the large pump supplying this district broke down, leaving the district out of water for the greater part of one day. This occurred just before the last report went to press and was referred to therein. On warm days the Forest Hill tank has been drawn down very low and on one it was completely emptied. A new tank was authorized and will be built this year but no appropriation was made for a new pump, which is needed badly.

Transmission Mains:

No changes have been made in the transmission mains during the past year. All of the pipe lines are in good condition except the old San Andres transmission

*Actually an increase of .8 per cent due to leakages.

CALAVERAS SPILLWAY
On February 18, 1941, a year after completion, the new stilling basin received the spill from Calaveras reservoir for the first time.

line to College Hill. No major work was done on the transmission lines this fiscal year.

City Reservoirs:

The city reservoirs are in good condition. The planting at Sunset is completed but no work has been done at University. The necessary maintenance has been done but all is of a routine nature.

Lake Merced:

No water was drawn from the lake. The lake spilled during the winter, this being the second year that it has overflowed. Only routine work was done at Lake Merced. The concessionnaire gave up the lease at the boat club and since May 29 the Water Department has been operating the concession with its own forces. The Police Department is clearing the piece of land assigned to it for a practice shooting range on the west shore of the south lake.

Pumping Stations:

Central pumps operated throughout the year, pumping 2,713,252,000 gallons into Stanford Heights reservoir. The old galvanized iron covered rear wall and the old shop were removed and a new wall and shop constructed to harmonize with the design of the remainder of the building. This makes the appearance from the rear as attractive as from the other three sides.

The Precita Valley pump lot was sold but the right to maintain and operate the pump was reserved for a period of fifteen years or until a new pumping station is constructed. As the new Alemany pumps are under construction and should be ready to operate before the end of the year, the Precita Valley pumps will soon be a matter of history.

No other changes were made in any of the pumping stations. The small electric pumps scattered through the City to serve the higher isolated areas have been operated without incident through the year.

Meter Expense:

The year began with 123,921 and ended with 128,422 meters in service. These meters and meter settings were maintained and repaired as necessary. During the year there were 4,177 meters changed and 541 brought home.

Street Department Expense:

This is a routine account which covers the costs of blowing off dirty waters and answering miscellaneous complaints. Only routine work was performed.

Machine Shop:

The machine shop is required to bid against manufacturers on all work which it performs in manufacturing and supplying such items as gate valves, air valves,

meter plates, pipe nipples, etc. During this past year the shop was low bidder on some 25 jobs aggregating $14,500. For 11 of these contract jobs completed during the year total shop costs amounted to $3,654.71 as compared with quotations of the next lowest bidder of $4,924.71 showing an actual effective net saving to the City of $1,270.07 or a saving of approximately 25 per cent on the price at which this material could otherwise be obtained.

Service Connections and Meter Installations:

During the year 5,159 services were installed and 5,018 meters were set. Of the total services, 98.5 per cent were ¾-inch, while of the meters 96.9 per cent were of the ⅝"x¾" size. Many of these services were installed in advance of street paving and have not as yet been put to use.

City Pipe System:

A detailed record of the pipe laid is given in the appendix.

Contracts for Main Extensions:

During the past year, 38 contracts were awarded for laying pipe for main extensions. Charter provisions permit appropriate departments to bid on such work and the Water Department was the low bidder on and was awarded 12 of these contracts.

During the year the department completed contracts for 12 such main extension jobs, at a total performance cost of $23,971.78. This compares with a figure of $28,024.48 on the basis of the lowest bids for the same work by private contractors and reflects a net saving of $4,052.70. In connection with these contracts, whether performed by the department or by private contractors, the department supplies the material at cost. If the costs of material supplied be eliminated and these jobs be compared on the basis of labor costs only, the percentage of saving is striking. The department's actual labor cost in performing these jobs amounted to $8,294.76 as compared with $12,347.46 representing the lowest private contractors' bids, exclusive of materials furnished by the City.

WATER PURIFICATION DIVISION

The activities of the Water Purification division have been similar to those of previous years. The volume of work handled during the year decreased slightly due to lack of personnel. Two engineers on the purification staff were called into military service and the vacancies thus created had not been filled at the end of the fiscal year. Special studies have been carried on relative to biological conditions of the reservoirs; corrosion studies have been carried on and research work previously reported has been continued. The services of the division were made available to the G. G. I. E. in handling a serious pollution of the water piping on the Island which occurred as a result of the fire in the California building. As the result of the prompt and effective handling of the situation, no serious cases of illness were reported.

Laboratory:

The laboratory and Purification division office continue to be housed in the old pump station at Millbrae. New fluorescent lighting fixtures were placed in the main laboratory room and a small amount of new equipment was purchased. Further additions to the laboratory equipment cannot readily be made in the present quarters as there is no room for further expansion. Any additional activity incident to national defense precautions, or any increase in specialized work, will make additional space essential.

Following is a tabulation of the samples examined in the laboratory during the fiscal year:

Bacteriological Examinations	3,917
Microscopical Examinations	495
Filamentous Organisms, Inoculations and Examinations	2,160
Complete Mineral Analyses	81
Partial Chemical Analyses	415
Complete Soil Analyses	12
Nitrogen Cycle Determinations	15
Boron Determinations	75
Dissolved Oxygen Tests	655
Miscellaneous Field Chemical Tests	1,570
Electrical Conductivity Measurements	2,233
Break Point Chlorination and Chlorine Demand Tests	110
Corrosion Tests	860
Tests to Determine Origin of Leaks	160
Complaint Investigations (Field and Laboratory)	45
Miscellaneous Laboratory Tests Not Otherwise Included	67

Chlorination:

Chlorination of the water supply has been continuous at all regular stations throughout the year. Some of the chlorinating and ammoniating equipment has been moved to other stations and some additional facilities provided for handling containers. The chlorinating machine formerly located at Lake Honda Reservoir has been moved to the North San Andres outlet for use as a standby unit. The ammoniator at North San Andres was moved from the venturi meter house to the chlorine house. The ammoniator formerly at Irvington Portal has been moved to Crystal Springs and is being installed for use on the Number 2, Crystal Springs pipe line. Two recording scales formerly at Irvington were moved to peninsula stations. One was installed at the North San Andres outlet and one at the Bald Hill outlet. Some rebuilding of the recording mechanism was necessary and these scales are now in operation giving a continuous, permanent record of chlorine application at these two stations. A chlorine flow recorder has also been in operation at College Hill. Further installations of recording apparatus of this type will be made as replacements to existing equipment become neces-

CENTRAL PUMPING PLANT
Rear view, showing new stucco wall and extension replacing temporary wall.

sary. An automatic timing device similar to the one installed on the chlorine machine was built and installed on the ammonia machine at College Hill, giving this station full automatic operation. The portable emergency chlorinating equipment has been used a number of times during the year to disinfect new construction and was used at the Exposition grounds in an emergency following a fire at the California building. There are now in operation or in reserve throughout the system a total of twenty-four chlorinating machines and eight ammonia machines at eleven stations. The Tesla Portal chlorinating plant operated from October 21 to November 8 and again from December 29 to May 29. The operation of this plant and the results thereof have been entirely satisfactory.

Algae and Weed Control:

All of the principal storage reservoirs have been maintained at fairly high levels throughout the year and the quality of water withdrawn has been satisfactory. The heavy rainfall of the Spring of 1941 resulted in most of the reservoirs overflowing and increased the turbidity of water in the reservoirs to some extent. Within a few weeks, this turbidity settled out and except for a very short time clear water was supplied to all consumers. Copper sulphate treatments have been made as required, averaging three treatments per reservoir for the year. Microscopical examination of samples from the reservoirs is made twice

each week. A long-range study of biological and physiological conditions in the reservoirs is now being completed. This study involves many factors and will be of value to the operating forces of the department. The accompanying charts show a portion of the data determined in this study. The new copper sulphate treating machines are now in use on all the reservoirs and are effecting a saving in the cost of treatment.

Open distributing reservoirs in the City Distribution system continue to cause some trouble with weeds, College Hill Reservoir being the worst offender. Weeds were removed from this reservoir in the Fall of 1940 and their removal will again be necessary this year. The replacement or covering of this reservoir is urged as soon as possible. Lombard reservoir has given some trouble and will have to be cleaned again soon. A chlorine feeding machine is being installed at this reservoir to control a mild contamination which has occurred intermittently in recent months.

REPORT OF LABORATORY EXAMINATIONS

Week Ending July 5, 1941

Source and Reservoirs—	Max. Agar Count 37° C	Coliform Group 10cc Por. No. Ex'd	No. Pos.	% Pos. Year	Chemicals p.p.m. Alk.	Cl.	Hard.	pH	Turbidity	Date Sample Pos.
Moccasin Reservoir	1	5	0	67.2	14	1	14	7.0	1—	
Crystal Springs Lake	65	5	0	31.8	..	..	..	..	.	
San Andres Lake	1	5	0	46.7	..	..	..	..	.	
University Mound Reservoir	4	10	3	28.5	..	..	..	..	.	6-30 (2) 7-3 (1)
College Hill Reservoir	4	10	10	69.8	..	..	..	..	.	6-30 (5) 7-3 (5)
Treated Waters—										
Niles Reservoir	5	5	0	0.8	180	32	208	8.2	1—	
Hetch Hetchy Aq. Bay Crossing	4	5	0	0.8	82	6	97	7.7	2	
Palo Alto Pipe Line	9	5	0	2.9	82	6	97	7.7	2	
Crystal Springs Line	3	30	0	0.2	72	11	77	7.7	1+	
Alameda Line, Belmont	16	5	0	4.6	72	11	77	7.7	1+	
San Andres Line	50	30	0	0.9	61	13	74	7.8	2	
North San Andrés Line	65	30	0	0.8	61	13	74	7.8	2	
University Mound Inlet	15	10	0	10.9	..	..	..	..	.	
University Mound Outlet	5	10	0	0.6	..	..	..	..	.	
University Mound System	8	10	0	4.2	..	..	..	..	.	
College Hill Inlet	18	10	0	1.7	..	..	..	..	.	
College Hill Outlet	11	10	0	1.7	..	..	..	..	.	
College Hill System	3	10	0	3.9	..	..	..	..	.	
Sunset Inlet	6	10	0	1.8	..	..	..	..	.	
Sunset Outlet	5	10	0	0.0	..	..	..	..	.	
Sunset System	2	10	0	0.4	..	..	..	..	.	
Central Reservoir	7	10	0	0.4	..	..	..	..	.	
Stanford Heights Reservoir	5	10	0	1.3	..	..	..	..	.	
Stanford Heights System	15	10	0	0.2	..	..	..	..	.	
Lombard System	0	5	1	14.9	..	..	..	..	.	6-30
San Francisco Airport	4	10	0	1.0	72	11	77	7.7	1+	
Sunol Town Supply	6	5	0	0.8	..	..	..	..	.	

Remarks: All water supplied to consumers conforms to standards.

SAN FRANCISCO WATER DEPARTMENT
MINERAL ANALYSES

(Results expressed in parts per million except pH)

Source—	Crystal Springs Line	San Andres Line	Calaveras Reservoir Outlet	Hetch Hetchy Aqueduct
	Date Sampled			
	5-28-41	5-19-41	5-28-41	5-28-41
Turbidity	1	1+	2	1—
Conductivity ($Kx10^5$)	20.7	20.9	20.8	2.89
pH	7.7	7.6	7.6	7.1
Total Solids	116	125	116	24
Nitrate (NO_3)	0.80	0.71	0.60	0.30
Boron (B)	0.08	0.07	0.08	0.07
Silica and Insolubles	7.2	6.1	4.2	3.7
Sodium (Na) (Direct)	9.29	11.1	6.17	2.66
Calcium (Ca)	18.4	21.4	21.9	3.2
Magnesium (Mg)	8.60	8.20	8.10	1.0
Iron, Dissolved (Fe)	0.03	0.09	0.38	0.06
Aluminum (Al)	0.4	0.5	0.6	0.1
Manganese (Mn)	0.0	0.0	0.0	0.0
Bicarbonate (HCO_3)	87.9	89.1	97.5	12.2
Carbonate (CO_3)	0.0	0.0	0.0	0.0
Sulphate (SO_4)	15.0	19.7	16.7	5.1
Chloride (Cl)	10.0	10.5	7.0	1.5
Hardness, Calculated $CaCO_3$	81.2	87.2	88.0	12.1
Alkalinity as $CaCO_3$	72	73	80	10

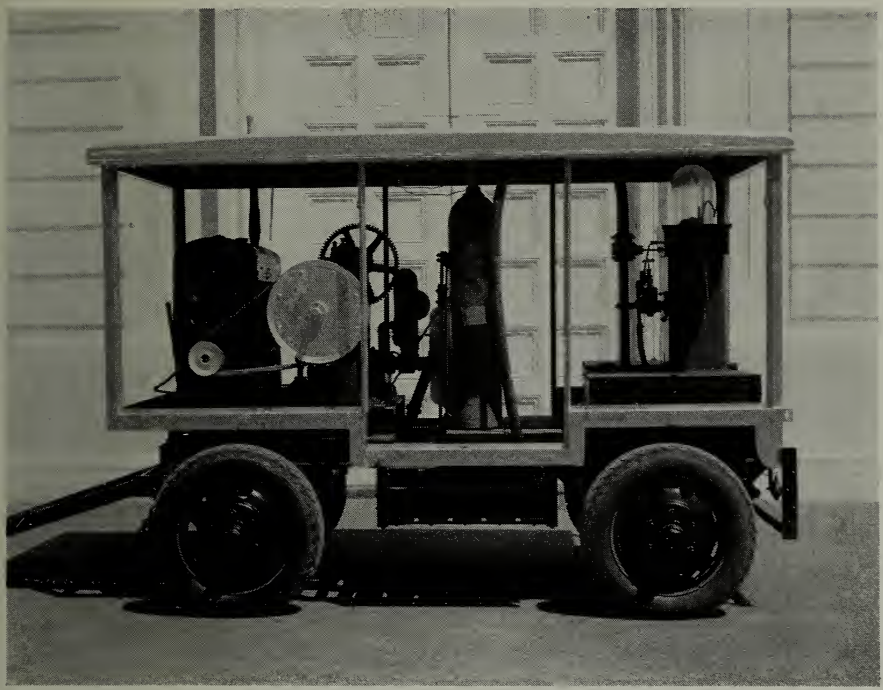
Column 1 supplies downtown, commercial, waterfront areas of the city.
Column 2 supplies residential areas of the city.
Column 3 supplies peninsular communities only.
Column 4 not in use at present time.

Filamentous Organisms:

A study of the filamentous organisms occurring in portions of the aqueduct has been continued and considerable research has been conducted along this line. Once during the year there was an occurrence of growth in a portion of the aqueduct which proved to be caused by a different organism than heretofore encountered. Its elimination was effected by adjustment of the chemical dosage at Calaveras and Tesla. Constant vigilance and repeated testing is necessary to prevent recurrence of this trouble.

Cross Connections:

Protection of the San Francisco water supply against possible contamination by other sources has been continued during the year. All of the wells in use throughout the system were re-examined, analyses made of the well water and a check-up of the plumbing made. A survey of industrial plants for plumbing hazards was partially completed. This important work will be continued when adequate personnel again becomes available.



PORTABLE CHLORINATOR
For emergency use in case of local pollution in system or failure of stationary equipment.

Complaints:

The number of bad water complaints received during the year is the lowest in many years. This is attributed to diligent supervision of water treatment and the fact that the reservoirs were fairly full during the year. The Purification division investigated a number of these complaints, the majority of which were of short duration. The largest number of complaints of quality of water received are due to turbidity which is occasioned by heavy rainfall or operating emergencies. Filtration of the water supply is the only satisfactory method of controlling this difficulty. A complete and thorough flushing of the distribution system should also be made.

Corrosion:

The study of the problem of pipe corrosion has been continued along the lines outlined in the last annual report. In addition to this, an experimental plant has been constructed in the pump house at Millbrae for an intensive study of methods of controlling pipe corrosion. Varying quantities of chemicals and combinations of chemicals have been added to test lines under controlled conditions and the result of these treatments carefully checked with scientific instruments and recorded. This experimental plant is still in operation and the final results of the study will not be known until the work is completed.

Exposition Studies and Fire:

The Purification division rendered advice and some assistance to the Golden Gate International Exposition in connection with certain problems involving the fountains and other service. At our suggestion, chemical treatment was applied to the water used in the display fountains to prevent corrosion of the piping. This work was continued from the previous year.

On August 24, 1940, a fire occurred in the California building on the fair grounds. In fighting this fire, salt water was pumped from the bay by a fireboat, into the high pressure piping system on the grounds. Some of this polluted salt water entered the domestic piping system and resulted in a general pollution of the water supply throughout the grounds.

Exposition officials called upon the Water Department for assistance and the Purification division responded. The portable chlorinating unit was immediately moved to the fair grounds and put to work chlorinating the water system. As the polluted water was flushed out of the mains and services, a strong chlorine solution was pumped in with the flushing water.

Every fixture on the grounds was opened and allowed to run until a strong chlorine residual was detected at each outlet. This highly chlorinated water was then allowed to stand in the pipe for several hours, after which it was flushed out with fresh water. Following this, the high pressure fire system was disinfected in the same way.

Between noon of August 24 and 7:00 A.M. of August 25, every foot of piping on the fair grounds was chlorinated. There were sixty thousand people on the Island the day of the fire and 110,000 the following day. It would not have been possible to open the Exposition the following day had it not been for the prompt work of the Water Department in eliminating this danger of disease. So far as is known, no case of sickness resulted from this occurrence.

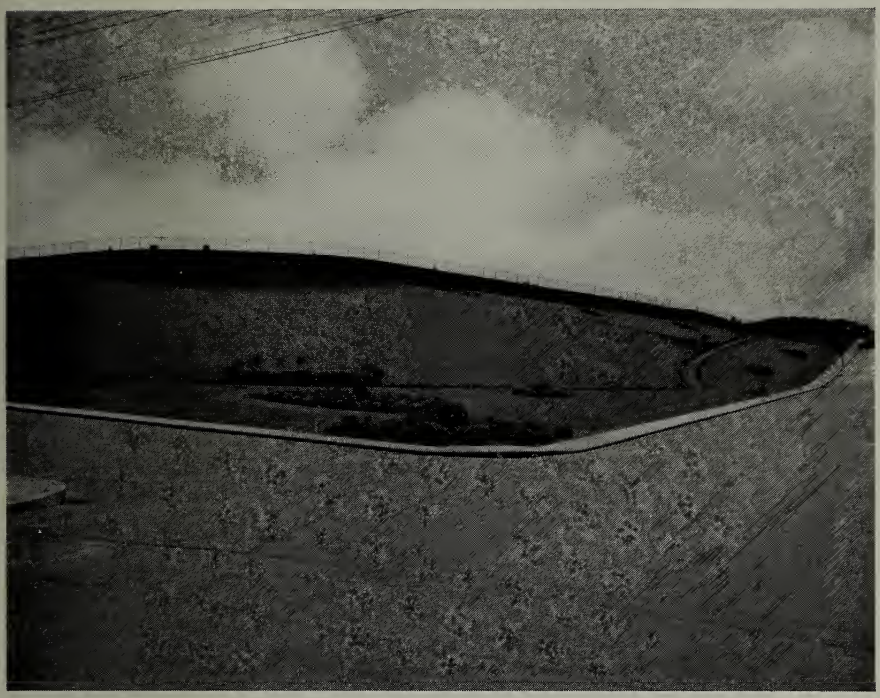
General:

The Purification division continues to cooperate with other divisions of the Water Department and other city departments. A large volume of work is being handled in connection with litigation for the Hetch Hetchy department. The cross-connection survey is being conducted in conjunction with the Department of Public Health.

WATER SALES DIVISION

Gross Water Sales for the year were $7,338,892. After deduction of allowances, refunds and losses amounting to $27,540, net sales were $7,311,352, an increase of $46,166 or 0.64 per cent, as compared with the year 1939-40. Suburban accounts increased $25,767 and San Francisco accounts $20,399. Revenue from the Palo Alto pipe line amounted to $95,983 for a metered delivery of 85,139,000 cubic feet.

The number of active consumer accounts on June 30, 1941, was 124,598 as compared with 120,829 on June 30, 1940, an increase of 3,769. During the past two years total meters installed increased by 8,384 and total active accounts by 7,409.



SUNSET RESERVOIR
Landscaping of embankment provides local community asset appreciated by neighboring residents.

In connection with the sales record, comparison of charges for the past two years is shown in non-paying municipal accounts including the Recreation Commission and Libraries which were added to this group in the past year. These sales for the year 1940-41 totaled $544,522 as against $525,243 for the year 1939-40, an increase of $19,279. Of this increase $8,943 is shown for public parks, $2,953 for the Municipal Airport, $1,991 for improvement association irrigation and $3,392 for Recreation Commission service.

The total amount of bills in suspense is $5,497.06, an increase of $238.89 over the previous year. Held in active suspense are accounts for which we receive dividends or partial payments from the Board of Trade or from receivers until such time as they are definitely closed issues; any remaining balances are then included in write-off. Accounts totaling $2,020.66 are now being handled in this manner. Bills written off amounted to $4,446, an increase of $772.63. Of the total written off $1,168.61 is accounted for in bankruptcy proceedings. Board of Trade actions and estates of deceased as compared with $1,587.60 in the preceding year. The percentage of losses in San Francisco from uncollectable accounts to net sales over the past five years is shown as follows: 0.09 for 1936-37; 0.07 for 1937-38; 0.08 for 1938-39; 0.06 for 1939-40 and 0.09 for 1940-41.

Service and distributor installations were 5,100 compared to 4,312 last year, reflecting an increase of 788 or 18 per cent. Of this total 4,692 were installed in the Sunset-Parkside, South of Market and Twin Peaks districts. There are 127,263

active services, all metered, of which 124,039 are revenue producing, an increase of 3,820 over last year; 3,324 services are temporarily shut off.

The past year shows a gain of 201 building permits for an increase of $8,178,510. Permits issued for the year were 8,810, representing a value of $33,618,430 which includes the new $4,000,000 U. S. Appraiser's building. Unusual activity in home building still continues. Frame construction, almost wholly residential, accounts for 52 per cent of the total value. A total of 4,385 jobs handled shows an increase of 486 over the previous year. Activities of our contractors' and builders' inspector covered arrangement of water supply for office buildings and residences during construction, for installation of water and gas mains, for grading and street work in subdivisions and for W.P.A. construction projects. Major construction work under way during the period included the Appraiser's, Bank of America head office and National Broadcasting buildings, Union Square garage and Federal Housing projects. A full year's experience covering service to the Holly Park project consisting of 118 units with an average population of 370 develops the following:

Average monthly bill	$146.20	
Monthly cost per unit	1.24	
Monthly cost per capita	0.395	
Average monthly use	64,592	cubic feet
Monthly use per unit	547	cubic feet
Daily use per capita	43	gallons

A slight improvement is shown in our collection record. The ratio of collections to net sales for the fiscal year 1940-41 was 92.9 per cent, an increase of six-tenths of one per cent over last year. Branch bank agencies, now numbering 92, collected 36.7 per cent of the total bills issued, an increase of 2.0 per cent. Our regular collectors handled 78.4 per cent of the bills issued and collected 28.2 per cent, an increase of two-tenths of one per cent. The average number of bills handled by regular collectors per man-day decreased from 230 last year to 228 and the average collected per man-day—64, remained the same. Activity of our motorized special collector continues to show favorable results. The record shows that 65.1 per cent of the total bills handled by him were collected as compared to 63.1 per cent the previous year.

No change has been made in our collection procedure. The use of a third shut-off collector in following overdue accounts still continues. This helps to offset the loss of effort in this phase of collections when through necessity one of these men must be used during an emergency or peak activity period in the service and supply section. This plan has proved efficient in reducing the percentage of overdue accounts.

Delinquent bills as of June 30, 1941, carrying unpaid balances of one month or more increased 0.9 per cent. Most of these delinquencies occur in the San Francisco residential bills which now represent more than 78 per cent of the total city accounts. A percentage comparison for the past four years of total delinquencies as of June 30 follows:

1938—25.1 per cent	1940—23.0 per cent
1939—24.0 per cent	1941—23.9 per cent

This comparison does not include large corporation, suburban or governmental accounts.

Statistics and data relative to the activities of the Sales division are appended.

ENGINEERING DIVISION

Plans and specifications were prepared for 42 formal and 6 informal Water Department contracts which were awarded for a total estimated amount of $243,919.60. Engineering, supervision and inspection services were provided on 52 jobs totaling $216,153.29 of contract work performed during the year.

Considerable progress was made on the projected construction program to relieve the shortage of supply to the rapidly expanding high elevation distribution districts in the city. The immediate shortage in the Stanford Heights district is to be temporarily cared for by a contract let for the installation of two electrically-operated pumps at the Central pumping station.

Surveys and tentative layouts were made of the proposed new outlet from San Andres reservoir. A contract was let for construction of a pumping plant at University Mound and plans were drawn for a pumping station to be located at Baden. These two pump stations will be used to force Crystal Springs water into the higher distribution districts while the San Andres reservoir is lowered for construction of the new shaft and adits.

Also, in connection with this project, surveys and tentative layouts were made for the proposed new 500 foot elevation distribution reservoir to be located in Sutro Forest to relieve permanently the excess load on the Stanford Heights reservoir and to improve service pressure to consumers.

Further experimental work was carried on in an effort to reduce corrosion of the steel pipes of the Bay Crossing pipe line in the vicinity of Newark. A second cathodic corrosion eliminator was installed. Coupon tests were continued throughout the year and indicate a considerable reduction in the flow of electric current in the pipe since installation of the cathodic corrosion eliminators.

The customary work involving engineering and water records, property ledger additions and retirements, warehouse inventories, real estate descriptions and conditions, property maps, needed future extensions and cost estimates, purchase order specifications and other routine operations of the Water Department were carried on throughout the year.

Various services were performed for other departments of the Public Utilities Commission. Photograph and photostat work was done for all city owned utilities. Plans and specifications were prepared for a cottage at Moccasin, and plans were drawn for another at Lake Eleanor for the Hetch Hetchy project. Work done for the Municipal Railway included specifications and inspection service for interior painting and floor tiling at the Geary Street building, and architectural services for an addition to the 17th Street car barn to house electric trolley buses.

The W.P.A. has continued to furnish one man throughout the year for repairing and filing drawings, maps and other engineering records.

A brief description of construction work performed under contract during the past year follows:

A—Formal Contracts

1—Additions to City Distributing System:

In all contracts involving the laying of cast iron pipe or the installation of services, the contractor is required to obtain the pipe and fittings from the Water

Department. The cost of this material together with engineering and inspection costs is included in the following stated contract costs. In cases where the Water Department acts as the contractor, the cost given is the actual cost of the completed work.

Contract No. 242—Covered the laying of 933 feet of 4-inch cast iron pipe in Gaviota Way and in El Sereno Court, and 436 feet of 8-inch cast iron pipe in Bella Vista Way in Miraloma Park. Also included was the installation of 83 services. This contract was awarded to W. J. Tobin on April 22, 1940, and due to interference from grading contractors was not completed until September 26, 1940. The contract cost was $2,317.22.

Contract No. 246—For the installation of 726 feet of 8-inch cast iron pipe and 24 services in 37th Avenue from Wawona to Vicente Streets was awarded to the Water Department on June 3, 1940. Work was completed July 17, 1940, at a total cost of $1,513.64.

Contract No. 247—Provided for the installation of 50 services and the following cast iron pipe:

160 feet of 4-inch in Santa Fe Street, from Quint Street, north
220 feet of 4-inch in Topeka Street, from Quint Street, north
572 feet of 6-inch in Quint Street, Topeka to Scotia

The contract was awarded to the Water Department on June 17 and was completed August 23, 1940, for a total cost of $1,459.45.

Contract No. 248—Covered the installation of 63 services and the following cast iron pipe in Merced Manor and Lakeshore Highlands Subdivisions:

2,197 feet of 6-inch in Inverness and Forest View Avenues, Sloat to Eucalyptus
505 feet of 8-inch in Ocean Avenue from Forest View east
2,960 feet of 16-inch from Sloat Boulevard to Forest View Avenue via 22nd Avenue, Ocean Avenue, Melba Avenue and Eucalyptus Drive

This contract was awarded to E. J. Tobin on June 10 and was completed August 19, 1940, for a cost of $19,496.22.

Contract No. 249—Covered the installation of 289 services and the following cast iron pipe in Lakeside Subdivision No. 3:

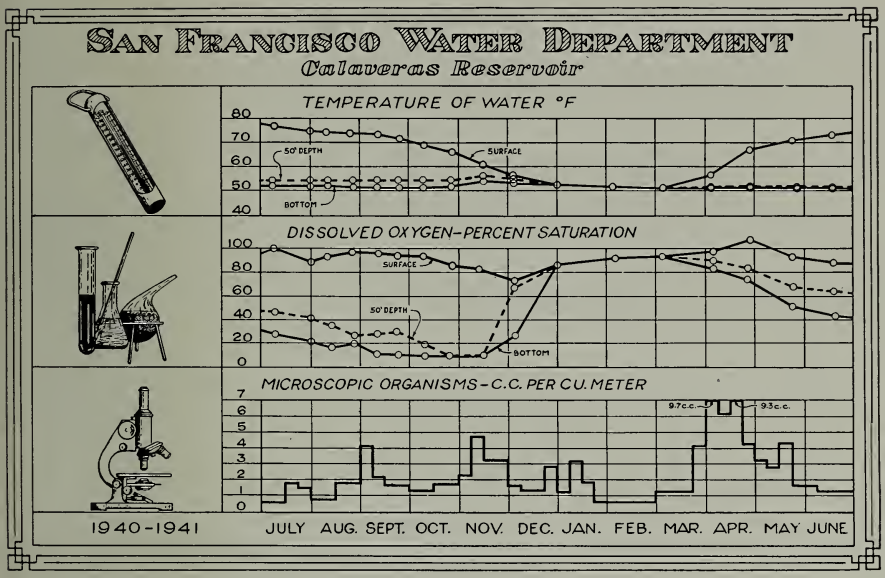
3,758 feet of 6-inch in Stratford and Denslowe Drives
7,013 feet of 8-inch in Junipero Serra Boulevard, 19th Avenue, Branbury Drive and Lyndhurst Drive
1,194 feet of 12-inch in Holloway Avenue, Monticello to 19th Avenue

The contract for this work was awarded to E. J. Treacy on June 10 and work was completed September 6, 1940, at a cost of $23,836.85.

Contract No. 251—Providing for the installation of 56 services and 466 feet of 6-inch and 1,560 feet of 8-inch cast iron pipe in the south portion of Lakeside Subdivision No. 2, was awarded to E. J. Treacy on June 24, 1940. Work was completed October 18, 1940, for $3,339.62.

Contract No. 252—For the laying of 774 feet of 6-inch cast iron pipe and the installation of 3 services in Bayshore Boulevard, from Arleta Street north, was awarded to Fred T. Fairey on June 17, 1940. Work was completed August 1, 1940, at a cost of $1,623.49.

Contract No. 253—Covered the installation of 14 services and the laying of 390 feet of 6-inch cast iron pipe in 40th and 41st Avenues, between Moraga and



Noriega Streets, and 14 feet of 8-inch cast iron pipe in Moraga Street, from 41st Avenue east. The contract was awarded to Martin Murphy on July 15 and work was completed August 16, 1940, at a cost of $1,174.30.

Contract No. 254—For the laying of 2,700 feet of 6-inch and 5,070 feet of 8-inch cast iron pipe in the Sunnydale Housing Project was awarded to E. J. Treacy on July 15, 1940, for an estimated bid price of $12,189.25. The work has been delayed pending completion of the street grading and as of June 30, 1941, was 73 per cent complete.

Contract No. 255—Covered the installation of 12 services and the following cast iron pipe:

378 feet of 6-inch in 40th Avenue from Ulloa north
294 feet of 6-inch in 44th Avenue from Taraval north
94 feet of 8-inch in Ulloa Street from 40th Avenue east

This contract was awarded to Fred T. Fairey on July 29 and was completed August 26, 1940, at a cost of $1,528.46.

Contract No. 256—Provided for the installation of 25 services and the laying of 204 feet of 8-inch cast iron pipe in Bella Vista Way from Gaviotta to Sequoia, and 473 feet of 12-inch cast iron pipe in Sequoia Way from Omar to Bella Vista. This contract was awarded to E. J. Treacy on July 29 and was completed October 3, 1940, at a cost of $2,100.57.

Contract No. 257-A—Covered the installation of 68 services and the laying of 395 feet of 4-inch, 1,871 feet of 6-inch, and 2,210 feet of 8-inch cast iron pipe in Quint, Maddux, Topeka, Venus, and Thornton Streets in Silver Terrace subdivision. The contract was awarded to the Water Department on September 16, 1940, and was completed March 12, 1941, at a cost of $7,268.60.

Contract No. 258—Covered the installation of 54 services and the following cast iron pipe:

588 feet of 6-inch in 30th Avenue from Pacheco to Quintara
166 feet of 8-inch in 36th Avenue from Noriega north
451 feet of 8-inch in 37th Avenue from Noriega south

This contract was awarded to Fred T. Fairey on August 26 and was completed October 8, 1940, at a cost of $2,362.83.

Contract No. 259—For the installation of 27 services and the laying of 664 feet of 6-inch cast iron pipe in 38th Avenue from Wawona to Vicente and 272 feet of 8-inch cast iron pipe in Vicente from 37th to 38th Avenues was awarded to the Water Department on September 3, 1940. Work was completed October 15, 1940, at a cost of $1,723.40.

Contract No. 260—For the installation of 28 services and the laying of 174 feet of 4-inch and 584 feet of 6-inch cast iron pipe in Princeton Street from Sweeny Street to Silver Avenue was awarded to the Water Department on September 3, 1940. Work was completed April 7, 1941, at a cost of $1,312.05.

Contract No. 261—Covered the installation of 11 services and the following cast iron pipe:

230 feet of 6-inch in 27th Avenue between Quintara and Rivera
193 feet of 6-inch in Lawton Street from 41st Avenue east
164 feet of 6-inch in Sloat Boulevard from 36th Avenue east
176 feet of 8-inch in Lawton Street from 32nd Avenue west

The contract for this work was awarded to Fred T. Fairey on September 3 and work was completed October 11, 1940, at a cost of $1,664.19.

Contract No. 262—For the installation of 50 services and the laying of 595 feet of 6-inch cast iron pipe in 23rd Avenue from Pacheco to Quintara and 238 feet of 8-inch cast iron pipe in Pacheco Street from 23rd to 24th Avenues was awarded to the Water Department on September 3, 1940. Work was completed May 5, 1941, at a cost of $1,512.09.

Contract No. 263—Provided for the installation of 32 services and the laying of 718 feet of 6-inch cast iron pipe in 24th Avenue from Quintara to Rivera and 643 feet of 8-inch cast iron pipe in Quintara Street from 22nd to 24th Avenues. This contract was awarded to W. J. Tobin on September 3, 1940, and was completed January 22, 1941, at a cost of $2,548.98.

Contract No. 264—Provided for the laying of 1,013 feet of 12-inch class 250 cast iron pipe from the Lake Honda Screen House to Sola Avenue via Laguna Honda Boulevard, Plaza and Magellan Streets. This contract was awarded to E. J. Treacy on January 27 and was completed March 20, 1941, at a cost of $4,-438.58.

Contract No. 266—For the installation of 4 services and 379 feet of 8-inch cast iron pipe in 37th Avenue between Wawona and Yorba Streets was awarded to Fred T. Fairey on September 16, 1940. Work was completed October 18, 1940, at a cost of $787.02.

Contract No. 269—Covered the installation of 69 services and the following cast iron pipe:

525 feet of 4-inch in Mercury Street, Ledyard to Thornton
576 feet of 4-inch in Thornton Avenue, Mercury to Scotia
656 feet of 6-inch in Ledyard Street, from Thorton Avenue north

This contract was awarded to Edwin J. Tobin on September 23 and was completed October 29, 1940, at a cost of $2,630.75.

Contract No. 270—Provided for the installation of 46 services and the following cast iron pipe:

281 feet of 6-inch in Stillings Street, Teresita to Detroit
498 feet of 6-inch in Melrose Avenue, Teresita to Detroit
338 feet of 8-inch in Detroit Street, Melrose to Stillings

The contract was awarded to W. J. Tobin on September 20 and work was completed November 20, 1940, at a cost of $2,122.08.

Contract No. 271—For the laying of 492 feet of 6-inch cast iron pipe and the installation of 5 services in Connecticut Street, from Army to 26th Streets, was awarded to Fred T. Fairey on October 14, 1940. Work was completed November 8, 1940, at a cost of $1,046.99.

Contract No. 272—Covered the installation of 17 services and the following cast iron pipe:

522 feet of 6-inch in 38th Avenue, north and south of Noriega
500 feet of 6-inch in 44th Avenue, from Taraval south
20 feet of 8-inch in Noriega Street, from 38th Avenue east
274 feet of 8-inch in Noriega Street, from 35th to 36th Avenues

This contract was awarded to the Water Department on November 12 and was completed December 4, 1940, at a cost of $2,635.20.

Contract No. 273—For the laying of 615 feet of 6-inch cast iron pipe and the installation of 43 services in Maddux Avenue, from Scotia to Topeka Streets, was awarded to Fred T. Fairey on November 12, 1940. Work was completed December 5, 1940, at a cost of $1,383.19.

Contract No. 274—Covered the laying of 125 feet of 6-inch and 59 feet of 8-inch cast iron pipe in the Potrero Housing Project and the installation of 37 services and the following cast iron pipe in Ulloa and Wawona Streets and in 38th and 44th Avenues:

76 feet of 6-inch in 38th Avenue at Wawona Street
132 feet of 6-inch in 44th Avenue from Ulloa north
311 feet of 8-inch in Wawona Street, 37th to 38th Avenues
293 feet of 8-inch in Ulloa Street, 43rd to 44th Avenues

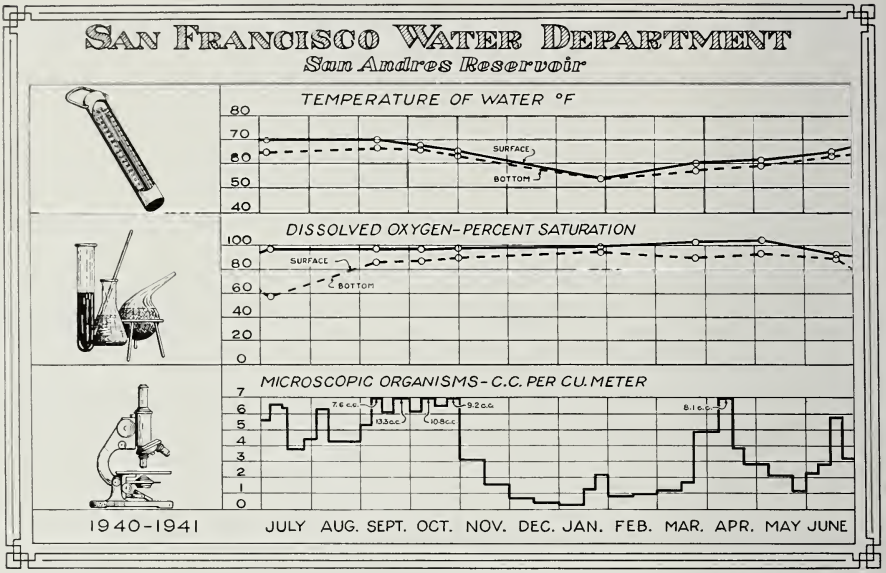
The contract for this work was awarded to the Water Department on December 9, 1940, and was completed January 28, 1941, at a cost of $2,255.05.

Contract No. 275—Covered the installation of 51 services and the following cast iron pipe:

290 feet of 4-inch in Arco Circle
192 feet of 4-inch in Naglee Street, from Cayuga Avenue east
914 feet of 6-inch in Havelock Street, Oloran to San Jose Avenue
524 feet of 8-inch in Alemany Boulevard, St. Charles Street east
368 feet of 8-inch in Cayuga Avenue, north and south from Naglee St.

This contract was awarded to Fred T. Fairey on December 9, 1940, and was completed January 22, 1941, at a cost of $4,685.64.

Contract No. 276—For the installation of 21 services and 756 feet of 6-inch cast iron pipe in Brunswick Street, Guttenburg to Allison Streets, was awarded to the Water Department on January 6 and was completed February 8, 1941, at a cost of $1,301.97.



Contract No. 277—Provides for the installation of 54 services and 615 feet of 6-inch and 350 feet of 8-inch cast iron pipe in Beacon and Miguel Streets from Harry Street east. This contract was awarded to Walter Lenkheit on January 6, 1941, for an estimated bid price of $2,286.05. Due to a delay in street grading no work has been done as of June 30, 1941.

Contract No. 278—Covered the installation of 178 services and the laying of the following cast iron pipe:

665 feet of 6-inch in 43rd Avenue, Rivera to Santiago
57 feet of 6-inch in Quintara Street at 44th Avenue
507 feet of 6-inch in Thornton Avenue, Scotia to Venus
736 feet of 6-inch in Bridgeview Avenue, Thornton to Topeka
577 feet of 6-inch in Apollo Street, Thornton to Topeka
668 feet of 8-inch in 44th Avenue, Quintara to Rivera
306 feet of 8-inch in Rivera Street, 43rd to 44th Avenues

The contract was awarded to Edwin J. Tobin on January 13 and work was completed April 7, 1941, at a cost of $7,050.43.

Contract No. 279—For the installation of 42 services and the laying of 315 feet of 4-inch cast iron pipe in Desmond Street and 434 feet of 6-inch cast iron pipe in Talbert Street from Sunnydale Avenue to the County Line was awarded to Fred T. Fairey on January 20, 1941. Work was completed April 18, 1941, at a cost of $1,547.00.

Contract No. 282—Provided for the installation of 6 services and the laying of 110 feet of 6-inch cast iron pipe in 45th Avenue, Ulloa Street north, 40 feet of 6-inch in 46th Avenue at Ulloa, and 310 feet of 8-inch in Ulloa Street, 45th to 46th Avenues. It also provides for the laying of 2,000 feet of 6-inch cast iron pipe for two parallel mains in Army Street from Mission to Shotwell Streets. The contract was awarded to W. J. Tobin on February 10, 1941, for an estimated bid

price of $4,805.70. As of June 30, the work was only 23 per cent completed due to delay in the widening of Army Street.

Contract No. 283—Covered the installation of 41 services and the laying of 1,380 feet of 6-inch cast iron pipe in Hahn Street, from Blythedale to Visitacion Avenues and 72 feet of 8-inch cast iron pipe in Visitacion Avenue at Hahn Street. This contract was awarded to W. J. Tobin on February 10, and was completed March 18, 1941, at a cost of $2,376.40.

Contract No. 284—Covered the installation of 174 services and the following cast iron pipe:

80 feet of 6-inch in 31st Avenue at Ortega
744 feet of 6-inch in 32nd Avenue, Noriega to Ortega
667 feet of 6-inch in 33rd Avenue, Noriega to Ortega
744 feet of 6-inch in 34th Avenue, Noriega to Ortega
73 feet of 6-inch in 35th Avenue at Ortega
81 feet of 6-inch in 36th Avenue at Ortega
1,889 feet of 8-inch in Ortega Street, 30th to 36th Avenues

The contract was awarded to E. J. Treacy on March 10 and was completed March 22, 1941, at a cost of $7,413.63.

Contract No. 286—Covered the installation of 14 services and 1,025 feet of 6-inch cast iron pipe in Bosworth Street, O'Shaughnessy Boulevard to Elk Street, and 200 feet of 6-inch cast iron pipe in Bernal Avenue at San Jose Avenue. The contract was awarded to W. J. Tobin on March 24 and was completed May 16, 1941, at a cost of $2,465.70.

Contract No. 287—Covered the installation of 77 services and the following 6-inch cast iron pipe:

400 feet in Point Lobos Avenue, Alta Mar Way to 48th Avenue
530 feet in Melrose Avenue, Detroit Street east
852 feet in Duncan and Newburg Streets, Diamond to Castro Streets

The contract was awarded to Fred T. Fairey on March 31 and was completed May 9, 1941, at a cost of $3,561.88.

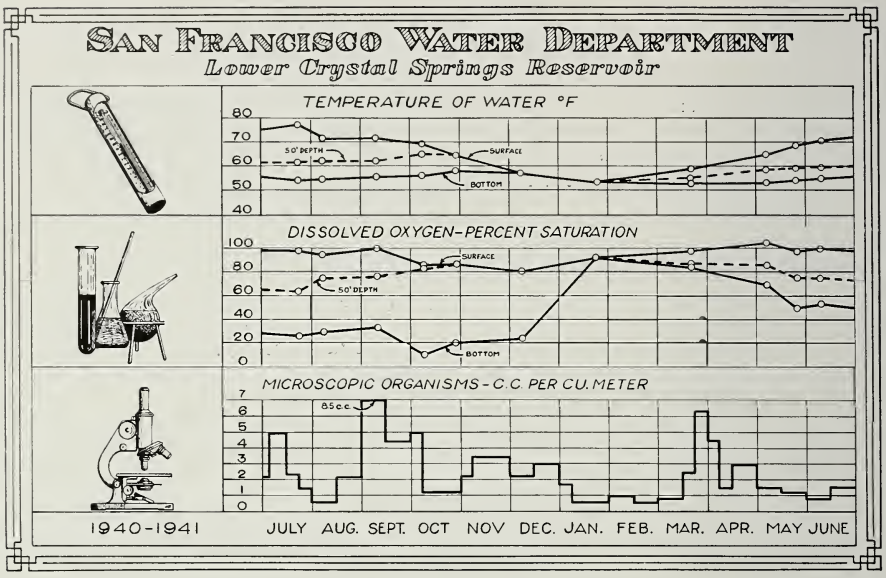
Contract No. 288—For the installation of 35 services and 606 feet of 6-inch cast iron pipe in 38th Avenue from Taraval to Ulloa Streets was awarded to Fred T. Fairey on April 7, 1941. Work was completed May 15, 1941, at a cost of $1,-046.78.

Contract No. 289—Provided for the installation of 267 services and the laying of 3,749 feet of 6-inch, 1,355 feet of 8-inch and 1,677 feet of 16-inch cast iron pipe in Lakeshore Park Subdivision No. 2. The contract was awarded to E. J. Treacy on April 7, 1941, and was completed June 13, 1941, at a cost of $16,716.93.

Contract No. 290—For the laying of 586 feet of 6-inch cast iron pipe and the installation of 48 services in 39th Avenue from Moraga to Noriega Streets was awarded to the Water Department on March 21, 1941. Work was completed May 15, 1941, at a cost of $916.39.

Contract No. 291—Covered the installation of 103 services and the following cast iron pipe:

540 feet of 4-inch in Roblee Avenue, Thomas to Revere
321 feet of 4-inch in Quint Street, Thomas to Revere
718 feet of 6-inch in Thomas Avenue, Silver to Maddux Avenues
300 feet of 6-inch in Revere Street, Silver to Quint Street
490 feet of 6-inch in Stillings Avenue, Detroit to Congo



This contract was awarded to Edwin J. Tobin on April 28 and work was completed June 13, 1941, at a cost of $4,359.13.

Contract No. 292—For the laying of 648 feet of 6-inch cast iron pipe and the installation of 35 services in 40th Avenue from Ulloa to Vicente Streets, was awarded to the Water Department on May 19, 1941. Work was completed June 18, 1941, at a cost of $948.69.

Contract No. 293—Providing for the laying of 7,000 feet of 8-inch cast iron pipe for two parallel mains in Third Street from Mariposa to 23rd Streets, was awarded to E. J. Treacy on May 26, 1941, for an estimated bid price of $17,064.00. The work was 17 per cent completed as of June 30, 1941.

Contract No. 294—For the laying of 500 feet of 8-inch cast iron pipe and the installation of 4 services in Ortega Street, between 46th and 48th Avenues, was awarded to the Water Department on May 26, 1941, for an estimated bid price of $1,447.75. The work was completed June 28, 1941, but final cost figures are not yet available.

Contract No. 295—For the installation of 75 services and 1,855 feet of 6-inch cast iron pipe in Evelyn Way and Del Vale Avenue, from Portola Drive to O'Shaughnessy Boulevard, was awarded to the Water Department on May 26, 1941, for an estimated bid price of $3,685.00. No work has been done as of June 30 due to delay in street grading.

Contract No. 297—Provides for the installation of 93 services and the laying of 800 feet of 6-inch cast iron pipe in Thomas Avenue, from Selby to Silver Avenue, and 1,420 feet of 8-inch cast iron pipe in 24th Avenue, from Ortega to Quintara. This contract was awarded to the Water Department on June 23,

1941, for an estimated bid price of $4,931.95. Work had not been started as of June 30.

2—Additions to Supply and Transmission Facilities:

Contract No. 234—For the installation of a 30-inch cross-connection at Baden, between the Crystal Springs Pipe Line No. 2 and the Baden-Merced Pipe Line was awarded to Paris Bros. on June 17, 1940. Work was completed October 8, 1940, at a contract cost of $16,739.50.

The main items of the contract were 673 cubic yards of pipe trench excavation, and the furnishing and installing of 669 feet of 30"x¼" steel pipe, 14,934 pounds of steel pipe specials and 3 20-inch gate valves. Due to the contractor's inability to get delivery on the 20-inch gate valves within the time limit, 3 18-inch gate valves taken from the San Lorenzo pumping station were substituted and the new 20-inch valves were stored at Millbrae when delivered after completion of the work.

This cross-connection makes it possible to supply the Baden-Merced pipe from the Crystal Springs No. 2 line, which procedure will effect a saving of approximately $10,000 a year in pumping costs. It also relieves the overburdened San Andres pipes of delivering the 8 or 9 M.G.D. required at Central pumps.

Contract No. 280—Providing for construction of the Alemany Pumping station, was awarded to Alfred P. Fisher on May 19, 1941, for an estimated bid price of $26,463.00. As of June 30, work was 4 per cent completed.

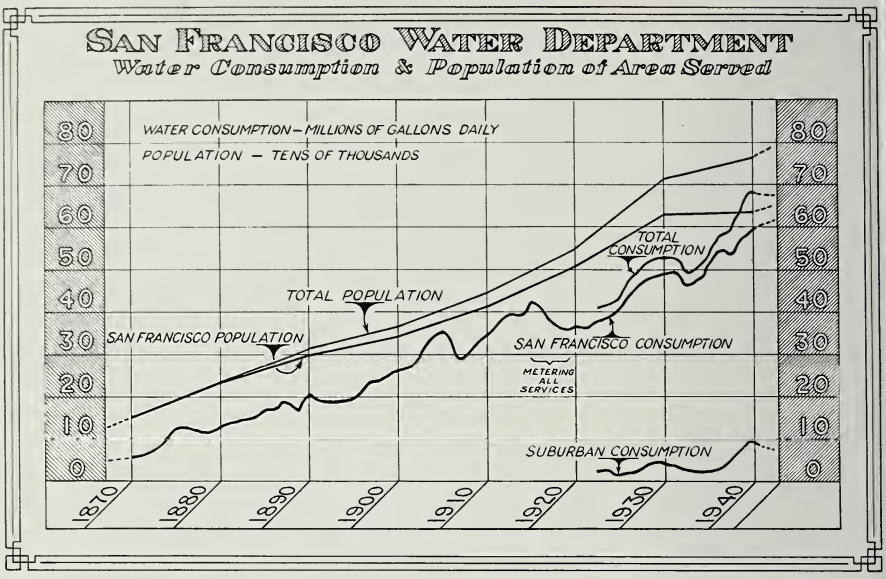
The pumping station is located on Felton Street at Dartmouth Street, and will be used to force Crystal Springs water from the University Mound reservoir up to the higher elevation districts. This will be initially required during the period that the San Andres reservoir is lowered to allow for construction of a new outlet shaft and adits; thereafter it will be maintained as an emergency standby plant to supply the higher levels in case of interruption of supply through the 54-inch San Andres line.

Major items of the contract are: construction of a 56 ft. by 27½ ft. wood frame building with cement plaster exterior and tar and gravel roof, installing three 16-inch centrifugal pumps, installing three 900 h.p. synchronous motors with automatic starting panels, installing six 20-inch electrically-operated gate valves with push button controls, furnishing and installing electrical work, and furnishing and installing 16,000 pounds of cast steel fittings.

The pumps, motors and starting panels are to be furnished by the Water Department, from equipment purchased for the Corral Hollow emergency pipe line in 1932. Six 20-inch electrically-operated gate valves and three 20-inch check valves are also to be furnished by the Water Department.

Contract No. 281—Provides for additional pumping capacity at the Central pumping station temporarily to meet the growing demand on the Stanford Heights reservoir.

The contract covers a 24 ft. by 81 ft. wood frame, exterior plastered addition and some alterations and repairs to the present building on Sloat Boulevard. It also provides for the installation of two 8-inch centrifugal pumps and two



300 h.p. electric motors, together with the necessary valves, fittings and electrical work.

The pumps, motors and some of the fittings and valves are to be furnished by the Water Department from the Sunset pumping station, which is no longer in use.

The contract was awarded to M. J. Lynch on March 31, 1941, for an estimated bid price of $16,183.00. The work was 57 per cent completed as of June 30.

Contract No. 285—Was intended to provide for a 44-inch cross-town discharge main extending from the Alemany pumping station now under construction at the University Mound reservoir to a connection with the existing 36-inch line at Arlington and Natick Streets which in turn connects with the College Hill reservoir and the San Andres 54-inch pipe line.

The contract provided for the removal of approximately 8,800 feet of 44-inch pipe from the Corral Hollow pipe line, which was to be reconditioned and relaid in this line. Bids were called for and opened June 17, 1941. Only two bids were received, the lowest being $175,370.50. As this figure exceeded the estimate by some $56,000, all bids were rejected and new bids will be called for.

Contract No. 296—Was to provide a 12-inch steel pipe to supply the town of Sunol and the proposed irrigation system for the Sunol walnut orchard and adjacent water department lands with water from either the Calaveras pipe line or the Hetch Hetchy aqueduct. It also contemplated the installation of two 25,000 gallon steel tanks to replace the present old wooden ones at Sunol.

Bids were opened June 17, 1941, and the lower of the two bids received was $21,170.00. As this amount was in excess of the funds available, as well as being

in excess of the engineer's estimate, all bids were rejected. New specifications are being prepared to call for redwood tanks in lieu of steel in order to bring the cost within available funds.

3—Miscellaneous Contracts:

Contract No. 250—Covered the repaving of street and sidewalk openings made by the Department for installation or repair work during the fiscal year 1940-41. The contract was awarded to the Pacific Pavements Co., Ltd., on June 17, 1940, and terminated June 30, 1941. Payments on the countract amounted to $26,-881.61. Repavement over trenches opened by other contractors performing work for the Department is not included under this annual paving contract as each contractor must provide for his own repaving.

Contract No. 265—For painting all of the interior woodwork, walls, ceilings, metal sash, radiators and piping on the 2nd to 7th floors, inclusive, of the 425 Mason Street office building was awarded to Deemer & Deemer on October 7, 1940. Work was completed November 29, 1940, for the bid price of $1,540.00.

B—Informal Contracts:

The following six jobs, involving less than $1,000.00 each, were done under work orders issued after posting a notice of invitation for bids and the receipt of at least three informal bids for each job.

Informal Bid No. 60—Covered the installation of a second cathodic corrosion eliminator on the Bay Crossing pipe line No. 1 near Newark. The eliminator was furnished by the Water Department and the installation was made by the Enterprise Electric Works, who submitted the low bid of $628.00.

Informal Bid No. 61—Provided for the installation of acoustical Celotex on the ceilings of the drafting room and the two adjoining offices on the 7th floor of the 425 Mason Street office building. The Western Asbestos Company submitted the lowest bid and performed the work for $743.00.

Informal Bid No. 62A—Covered repairs and alterations to the keeper's cottage at the Calaveras reservoir. New plumbing and lighting fixtures were installed and the interior was repainted and repapered. C. A. Bruce and Sons performed the work for a bid price of $902.00.

Informal Bid No. 63—Covered the furnishing and the installing of two gas furnaces at Sunol, one in the superintendent's cottage and one in the assistant superintendent's cottage to replace the old wood furnaces. The Atlas Heating and Ventilating Co. furnished and installed the furnaces for a bid price of $330.00.

Informal Bid No. 64—Provided for caulking and tightening all metal window frames on the Derby Street side and two large first floor windows on the front of the 425 Mason Street office building. Four bids were received varying from a high of $525.00 to a low of $190.00, for which price the work was done by the Chamberlain Metal Weather Strip Co.

Informal Bid No. 65—Covered painting and papering the interior of the keeper's house at the College Hill reservoir. The work was done by H. Ankers for a bid price of $185.00.

AGRICULTURAL DIVISION

On July 1, 1941, the land owned in fee was 63,867.811 acres, being a reduction of 1.072 acres from last year due to the following transactions:

Parcel No. 53, Lake Honda Tract—Sold to D. I. Wornaw....	0.422 acres
Parcel No. 55, Lake Merced Tract—Exchange with Spring Valley Company	0.410 "
Parcel No. 8, 26th Street Pump Station—Sold to Cogswell School.....	0.240 "
	1.072 acres

Of the above total area 34,266.90 acres are rented under 164 leases. This area is 37.66 acres less than last year, accounted for by the following changes:

Decreases:		
M. Hollauf—reduction in area.....		13.00 acres
Meadowlark Dairy Company—not renewed.....		29.50 "
John Trimmingham—not renewed.....		1.00 "
Westvaco Chlorine Products Company—reduction in area.		2.16 "
		45.66 acres
Increases:		
Frank Armenio—added acreage.....	3.00	
E. E. Phillips—new lease.....	5.00	8.00 "
Net Decrease		37.66 acres

SUMMARY

	Total Acreage	Leased Acreage	No. of Tenants	Cash Rentals	Share Crop Rentals
Alameda-Santa Clara Counties:					
Sunol District	37,158.920	32,759.730	42	$23,713.46	$3,507.34
Pleasanton District..	862.074	668.450	13	1,081.65	6,440.46
Niles District	741.724	295.047	52	1,618.61	.....
Hetch Hetchy R/W...	121.246	7.840	1	240.00	.....
	38,883.964	33,731.067	108	$26,653.72	$9,947.80
San Mateo County:					
Watershed	22,768.516	300.703	5	10,437.60	.....
Outside Watershed..	1,069.723	171.105	31	4,580.70	37.20
Hetch Hetchy R/W...	198.311	29.360	2	610.00	.....
	24,036.550	501.168	38	$15,628.30	$37.20
San Francisco County..	947.297	34.660	18	5,642.50	.....
Grand Totals	63,867.811	34,266.895	164	$47,924.52	$9,985.00

Pleasanton Lands:

The share crop rents from this lease for the year 1939-1940 amounted to $6,141.46. As noted in last year's report, planting was delayed by wet ground conditions, otherwise this amount might have been larger. The sugar beets were irrigated by means of an overhead sprinkler system and fertilizer was applied by adding it to the irrigation water.

During the winter and spring of 1941 there was a total seasonal rainfall of 24.19 inches, about 20 per cent above normal, which again delayed working the ground and planting. The following acreage was finally planted:

Sugar Beets	165 acres
Tomatoes	140 "
Barley	100 "
Volunteer Barley	60 "
Total	465 acres

The remaining 60 acres of the leasehold were too wet to plant at all.

The season, so far, has been favorable for sugar beets and the prospects are good for a normal tonnage. On the other hand, the weather has been too cold for tomatoes and up to the present the crop does not appear to be setting as well as it would in a warmer season.

Sunol Lands:

Plans are being made to install this fall an irrigation system at Sunol which in addition to serving the orchard will provide for the irrigation of some 400 to 500 acres of Water Department land near Sunol now leased for dry farming. With water available, the land served will be leased for growing such crops as alfalfa, sugar beets, tomatoes, etc. It is anticipated that the major portion of these lands will be planted to irrigated crops during 1942.

Cattle Leases:

The cattle leases remain substantially the same as reported last year. Rentals from existing leases show a total increase of $3,381.23, due to the higher prices obtained for cattle, which is reflected in the rental through application of the sliding scale for annual rental based on the selling price of cattle at the Union Stock Yards, South San Francisco.

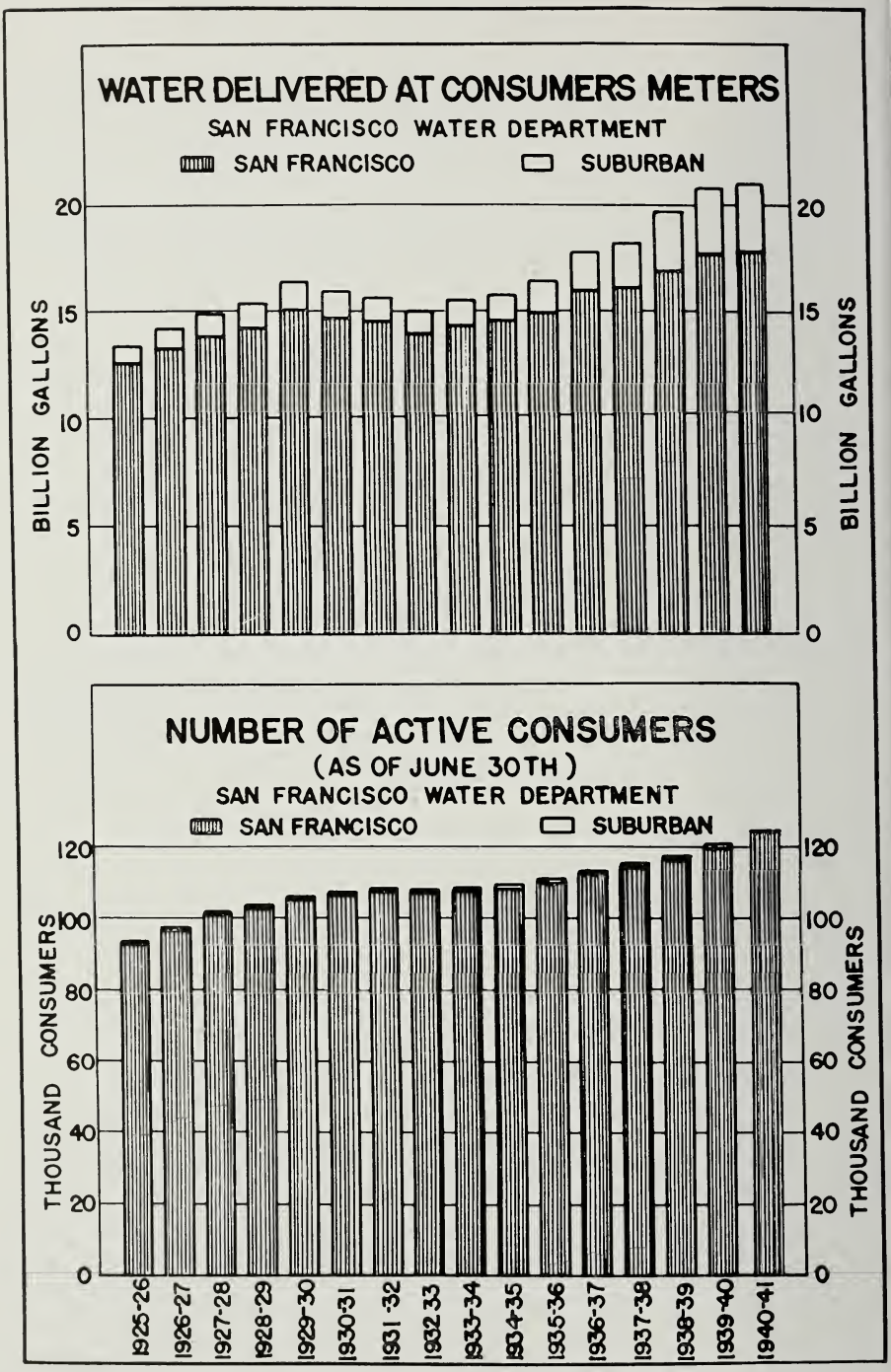
Unpaid Rentals:

Unpaid rentals as of June 30, 1941, were as follows:

Agricultural	$4,494.03
Non-Agricultural	1,804.13

Of the first amount, $3,443.83 is due from renters under cattle leases, which arrears are settled in the fall when the livestock is sold. Of the balance, $107.50 may be considered uncollectible. The other amounts will be paid in due course.

Of the non-agricultural unpaid rentals, $1,032.50 is considered as uncollectible; of this amount $900.00 is due from Thomas Cusick under his Lake Merced lease. The $771.63, considered as collectible, includes one month's rent ($500.00) due from the Crystal Springs Public Golf Course, Inc., payment of which is expected in the near future.


WATER DELIVERED AT CONSUMERS METERS
SAN FRANCISCO WATER DEPARTMENT
SAN FRANCISCO
SUBURBAN
BILLION GALLONS
0
5
10
15
20
NUMBER OF ACTIVE CONSUMERS
(AS OF JUNE 30TH)
SAN FRANCISCO WATER DEPARTMENT
SAN FRANCISCO
SUBURBAN
THOUSAND CONSUMERS
0
20
40
60
80
100
120
1925-26
1926-27
1927-28
1928-29
1929-30
1930-31
1931-32
1932-33
1933-34
1934-35
1935-36
1936-37
1937-38
1938-39
1939-40
1940-41

Share Crops:

During the season 1940-1941 twelve leases operated on a share crop basis. The City's rent share was sold for $9,985.00. Of this amount, $3,843.54 was received from the sale of hay. The hay crop was above average in yield but prices were low as quality was poor.

The spring of 1941 was another one of heavy rainfall and some fields could not be planted and were allowed to grow as volunteer. The present season has not been favorable for hay or grain but prices should be higher than last year.

Walnut Orchard:

The crop of walnuts harvested in 1940 totaled 90,148 pounds. This was the lightest crop in the past ten years; however, the sizes were average and the quality was good. The total value was $13,570.25. The small size of the crop is attributed to the low rainfall for the season 1938-1939.

As previously mentioned, funds have been appropriated and plans and specifications are now being prepared for the installation of a complete irrigation system to serve certain Sunol lands, including the orchard. When this installation is completed this fall it will be possible to maintain an adequate supply of moisture at all times. The variation in the yield of walnuts from year to year has been attributed to lack of moisture at times, and it is believed that with irrigation water available this variation will be largely overcome.

The present crop, to be harvested in the fall, is expected to be up to average in tonnage, size and quality. This favorable outlook may be accounted for by two successive seasons of normal rainfall in the Sunol district.

Care of the Orchard:

The tree work begun last year was continued; some die-back occurred and the dead wood was cut away; wound treatment continued, and a number of low-hanging limbs were removed. A number of trees were removed from the Mayette block. This work of thinning the orchard will be extended this fall and winter to sections where the Franquettes are overcrowding.

The only pest-control measures used during the year were aphis control by means of nicotine dust. Some experiments to determine the possible absence of what are called the "micro-elements" in part of the orchard where die-back has occurred were started this spring by specialists from the University of California. It is too soon to report on the results.

With the completion of the irrigation system it will be possible to plant a cover crop, and it is planned to do this in the late fall.

Fencing and Boundary Lines:

An attempt was made this spring to have some fencing done along county roads in Alameda and Santa Clara Counties. Bids were asked for on three projects but only one was received. This covered about one and one-quarter miles on the easterly line of Santa Clara County Road No. 2518, in Section 27/5S/1E.

Other fencing consisted of the customary repairs and upkeep of boundary fences made by renters with material furnished by the City.

Care of Properties:

The customary work of weed and rodent control was continued as heretofore.

WALNUT ORCHARD RETURNS

Crop and Value During City Ownership

Year	Total Yield Pounds	Gross Value	Net Cash Paid by Association	Association Charges in % of Gross	Packing House Charges Per Pound
1930	110,361	$23,905.44	$20,024.55	12.06	.0138
1931	91,570	13,778.73	12,272.73	10.90	.0091
1932	206,795	28,994.25	20,391.18	29.80	.007
1933	153,080	23,635.21	17,905.45	24.40*	.0073
1934	136,672	18,039.52	13,236.00	26.60*	.0059
1935	209,095	27,359.11	22,719.87	17.80*	.0045
1936	187,605	27,865.13	24,947.57	11.73*	.0046
1937	179,954	23,808.71	21,102.05	11.36*	.0042
1938	258,934	36,812.05	31,801.16	15.76	.0090
1939	153,770	12,747.35	11,366.74	16.52	.0124
1940	90,148	13,570.25	11,671.08	12.83	.0100

*Includes percentages of crops delivered to Control Board and loss in sales of same.

ACCOUNTING AND AUDITING

The accounts of the San Francisco Water Department are maintained strictly in accordance with the requirements of the State Railroad Commission and Section 64 of the Charter, which provides for supervision and control by the Controller and the accounts of the Department have been so coordinated with the Controller's system that no encumbrance or expenditures against budget estimates can be incurred without prior certification from the Controller that funds are available.

COMMENTS ON FINANCIAL STATEMENTS

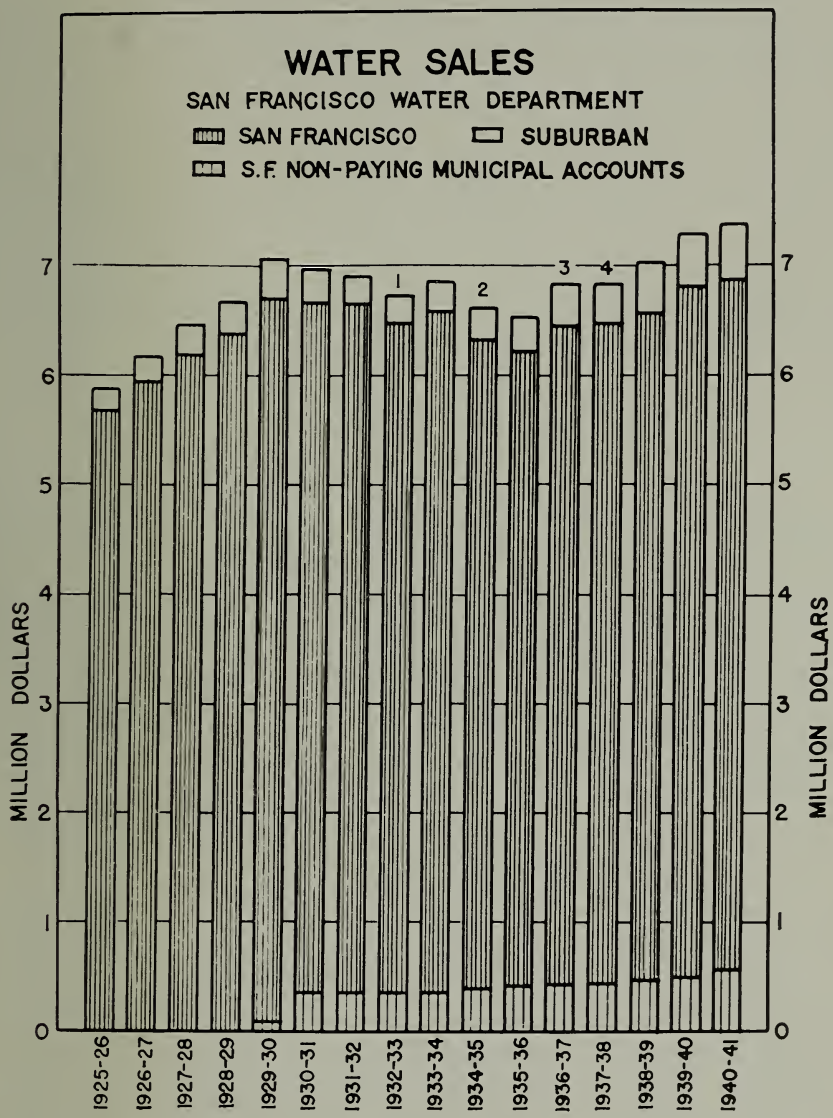
GENERAL BALANCE SHEET

EXHIBIT A

Following the practice adopted in 1938-39 the General Balance Sheet (Exhibit A) is shown in narrative form instead of the conventional form. The following notes give additional detail for certain items on balance sheet where such addition of detail or explanation may seem desirable.

Properties—$49,478,017.94

Complete detail for this account is shown on Schedule No. 1. The additions for the fiscal year are shown, which in turn are supported by Schedule 16.



RATE REDUCTIONS:

1 OCT. 26, 1932-75% ON FIRE SPRINKLER SERVICE CHARGES
2 DEC. 1, 1934-10% ON ALL RATES EXCEPT HYDRANTS AND SPRINKLERS
3 JAN. 1, 1937-7% & 48% ON INCREASED USAGE AT INDUSTRIAL & WHOLESALE RATES
4 JAN. 1, 1938-7% & 48% APPLIED TO ALL " " " " " "

Cash—$3,025,804.96

The separate funds in which this amount is held are shown on Schedule No. 3.

Accounts Receivable—$674,333.83

Inter-fund Accounts Receivable—$147,561.82

Deferred Charges—$573,336.89

These accounts are clearly defined on Balance Sheet.

Surplus—$14,393,341.99

An analysis of the description of Earned Surplus, together with additions thereto and deductions therefrom is shown in the body of these comments and also on Schedules C and D.

INCOME STATEMENT

EXHIBIT B

Gross water sales for the year were $7,365,700. Deduction of cash refunds $1,086 and allowances and adjustments made to various consumers $22,009, leaves net sales of $7,342,605, or an increase of $33,137 over last year.

Operating expenses increased over past year by the sum of $852,023. The principal cause of this increase is the inclusion in the expenses for 1940-41 of an item "Standby charge and purchase of water" in amount $773,284. Municipal taxes—comparison $544,521.98, which amount is governed by the amount of water delivered to other city departments, increased $44,028. Taxes paid to other counties increased $12,912, and provision for depreciation $16,040. All other items combined show a net increase of $5,759. Following is statement summarizing the above:

	Increase	Decrease
Source of supply	.....	$2,301.65
Stand-by charge and purchase of water	$773,284.00	.....
Pumping expenses	.....	22,916.69
Purification	2,241.15	.....
Transmission and distribution	4,315.99	.....
Commercial division	.....	468.97
Administrative and general	24,887.80	.....
Taxes — Actual	12,912.34	.....
Provisions for depreciation	16,040.26	.....
Municipal taxes—comparison	44,028.29	.....
Net increase	.....	852,022.52
	$877,709.83	$877,709.83

DISPOSITION OF EARNED SURPLUS

Exhibits C and D show surplus for past twelve months and composition of surplus accumulated to date. Following is a statement of the disposition of surplus arising from operations, together with additions and deductions not strictly confined to operations.

	To June 30, 1940	Year 1940-41	To June 30, 1941
Surplus—			
Contributed to:			
General Fund	$9,648,866.10	$454,425.00	$10,103,291.10
Hetch Hetchy Water Supply	2,885,958.74	223,414.30	3,109,373.04
Hetch Hetchy Power	4,170.00	.....	4,170.00
Appropriated for:			
Bond Redemption—Spring Valley	10,000,000.00	1,000,000.00	11,000,000.00
Bond Redemption—1933	1,968,594.33	563,000.00	2,531,594.33
Additions and Betterments	5,170,216.79	505,643.00	5,675,859.79
Purchase of Land	22,858.50	.....	22,858.50
Bond Interest—1933 Water Distribution Bonds	1,324.00	.....	1,324.00
Other Purposes	29,460.38	484.32	29,944.70
Surplus	*$487,148.58*	*$16,340.19**	*$503,488.77*
	$29,244,300.26	$2,730,626.43	$31,974,926.69
Add—			
Initial Surplus—Excess Earnings, Spring Valley Water Company	4,152,652.24	.....	4,152,652.24
Valuation—Municipal Water Works	100,000.00	.....	100,000.00
Grants Earned on Federal Projects	2,358,987.60	.....	2,358,987.60
Salvage—Newark-San Lorenzo Pipe Line	323,723.34	.....	323,723.34
Salvage—Corral Hollow Pipe Line	86,366.74	*86,366.74*	.....
Land Sales	26,926.14	7,068.33	33,994.47
Bond Premiums	821,684.38	.....	821,684.38
Reservoir Sites and Aqueducts	20,091.00	.....	20,091.00
Airport Pipe Line—Transferred	20,898.83	.....	20,898.83
City of Palo Alto	45,000.00	189,271.90	234,271.90
U. S. Army—Moffett Field	14,000.00	.....	14,000.00
California Water Service Company	56,000.00	.....	56,000.00
Miscellaneous Additions	133,183.13	*24,388,82*	108,794.31
Treasure Island Pipe Line and Reservoir—to June, 1940	.....	70,410.19	70,410.19
Treasure Island Pipe Line and Reservoir—1940-41	.....	26,807.94	26,807.94
	$8,159,513.40	$182,802.80	$8,342,316.20
Deduct—			
Contribution to General Fund	9,648,866.10	454,425.00	10,103,291.10
Deficit County Line Water Works	19,189.15	.....	19,189.15
Payment to Spring Valley Water Company for purpose of enabling City to take over properties in advance	745,274.31	.....	745,274.31
Land Contributed to City	143,121.07	.....	143,121.07
Contribution to Other Public Service Enterprises	2,890,131.74	223,414.30	3,113,546.04
Miscellaneous Deductions from Surplus	20,914.70	671.02	21,585.72
Depreciation Due to Revaluation	8,481,814.33	481.00	8,482,295.33
Depreciation Not Funded	2,399,367.20	896,230.98	3,295,598.18
	$24,348.678.60	$1,575,222.30	$25,923,900.90
	$13,055,135.06	$1,338,206.93	$14,393,341.99

*The net decrease in Earned Surplus has been decreased by $28,436.53 (Recreation Department water bills to June 30, 1940).

SAN FRANCISCO WATER DEPARTMENT

EXHIBIT A

BALANCE SHEET—JUNE 30, 1941

ASSETS

PROPERTIES:

This is the original cost of construction of properties purchased from Spring Valley Water Company in 1930 and additions made since by the Water Department. Of the total $71,481,746.35 is for completed projects and $86,793.40 for work not yet completed $71,568,539.75
Estimated loss in service value due to wear and tear 22,090,521.81

Remaining service value of properties now in use $49,478,017.94

CASH:

We have cash deposited with the Treasurer of the City and County of San Francisco totaling $3,025,804.96. Of this amount $1,790,406.68 is for the retirement of bonds maturing July 1, 1941, and for the payment of bond interest, $559,717.31, for additions and betterments and $176,377.76 for replacements of worn out plant and equipment; $173,486.71 held in trust to guarantee the payment of water bills and other work done for the public, $246,000.95 for payment of operating expenses, $49,835.55 for purchase of land, and $29,980.00 for General Manager's revolving fund 3,025,804.96

ACCOUNTS RECEIVABLE:

Water consumers' bills due to the Department amount to $525,378.57; City of Palo Alto $164,865.68 and other creditors $8,830.28. Against this amount is set up a reserve of $24,740.70 to offset any uncollectible accounts, leaving a net of 674,333.83

INTER-FUND ACCOUNTS:

This amount is due the Water Department from other City departments for monies advanced or work performed, but for which the Water Department has not been paid 147,561.82

DEFERRED CHARGES:

Of the total $486,459.30, the sum of $342,936.77 is the amount expended for materials and supplies, in stock not yet used; $16,096.51 for cash or credit advanced for work in progress, and $127,426.02 for uncompleted contracts and other commitments 486,459.30

$53,812,177.85

LIABILITIES

BONDED DEBT:

This is the remaining balance due on amount borrowed by the Water Department in bonds, which are being repaid at the rate of $1,563,000 per year $37,321,000.00

BOND INTEREST PAYABLE:

Accrued not due:
$675,000.00 represents six months interest on one lot of bonds maturing July 1 and January 1 of each year and $24,376.66 is one month's interest on a lot of bonds maturing June 1 and December 1 of each year 699,376.66

Matured coupons unpaid:
This is money due bond holders for interest coupons not yet presented for payment 101,467.50

ACCOUNTS PAYABLE:

This is money the Water Department owes on uncompleted contracts for materials and for services contracted for but unpaid. This also includes advances made by consumers 490,970.46

INTER-FUND ACCOUNTS:

Of the total $508,308.59—$93,546.16 represents money yet due the Hetch Hetchy Water Supply for bond interest and redemption. $14,762.43 due other City departments and $400,000.00 due for monies advanced from the general City cash reserve fund 508,308.59

DEFERRED CREDITS:

$275,598.38 of this amount is the amount expended by the Golden Gate International Exposition for pipe lines to and reservoirs on Treasure Island, less the value of water furnished them; $21,569.87 is amount of reserve for accident insurance and $544.40 for other items 297,712.65

SURPLUS:

This is the equity of the people of San Francisco in the San Francisco Water Department's system. It represents the amount that the present value of the properties exceed the outstanding obligations $14,393,341.99

$53,812,177.85

SAN FRANCISCO WATER DEPARTMENT

EXHIBIT B

INCOME ACCOUNT

FOR TWELVE MONTHS ENDED JUNE 30, 1941 AND 1940

	Twelve (12) Months Ended June 30		Increase or	Cumulation from March 3, 1930 to
	1941	1940	*Decrease*	June 30, 1941
Sale of Water:				
San Francisco	$6,252,032.25	$6,271,116.05	*$19,083.80*	$68,743,453.23
Outside of San Francisco	495,126.87	469,360.67	25,766.20	3,917,184.50
Municipal Departments—Actual	50,924.35	68,498.21	*17,573.86*	753,974.84
Municipal Departments—Comparison*	544,521.98	500,493.69	44,028.29	4,262,302.33
	$7,342,605.45	$7,309,468.62	$33,136.83	$77,676,914.90
Operating Expense:				
Source of Water Supply	$180,912.03	$183,213.68	*$2,301.65*	$3,103,557.82
Standby Charge and Purchase of Water	773,284.00	.....	773,284.00	773,284.00
Pumping	132,330.67	155,247.36	*22,916.69*	3,030,263.61
Purification	69,835.42	67,594.27	2,241.15	540,148.01
Transmission and Distribution	325,034.11	320,718.12	4,315.99	3,287,522.58
Commercial Division	355,282.55	355,751.52	*468.97*	3,826,700.77
Administrative and General	302,161.48	277,273.68	24,887.80	2,936,401.95
Taxes—Actual	248,416.20	235,503.86	12,912.34	2,897,057.76
Provision for Doubtful Accounts	6,000.00	6,000.00	.....	194,137.07
Provision for Depreciation	941,230.98	925,190.72	16,040.26	12,487,387.56
Municipal Taxes—Comparison*	544,521.98	500,493.69	44,028.29	4,278,541.05
	$3,879,009.42	$3,026,986.90	$852,022.52	$37,355,002.18
Profit from Operations	$3,463,596.03	$4,282,481.72	*$818,885.69*	$40,321,912.72
Other Income:				
Rentals, Including Crop Shares	$60,144.23	$49,136.29	$11,007.94	$603,317.23
Interest Earned	22,403.00	23,569.45	*1,166.45*	327,084.64
Sale of Walnuts	17,240.16	13,730.46	3,509.70	251,609.87
Miscellaneous	4,449.11	22,635.25	*18,186.14*	94,512.16
	$104,236.50	$109,071.45	*$4,834.95*	$1,276,523.90
Other Expense:				
Bond Interest	$1,651,903.33	$1,719,423.33	*$67,520.00*	$20,859,088.03
Agricultural Division	9,448.79	9,571.94	*123.15*	180,597.89
Walnut Orchard Expense	15,510.26	15,024.33	485.93	177,050.68
Miscellaneous	2,468.55	8,360.15	*5,891.60*	41,883.35
	$1,679,330.93	$1,752,379.75	*$73,048.82*	$21,258,619.95
Net Income	$1,888,501.60	$2,639,173.42	*$750,671.82*	$20,339,816.67
Comparison Charges for Federal Income and State Corporation Franchise Taxes Amount to (Estimate)	$445,496.22	$558,674.91	*$113,178.69*	.....

*Water Service to Municipal Departments Offset by Municipal Taxes.

Italic figures denote loss and deficiency.

EXHIBIT C

SURPLUS ACCOUNT

For Twelve Months Ended June 30, 1941

Balance—June 30, 1940 (Per Report)		$13,055,135.06	
Adjustment Per Audit Report			
Add:			
Restore Water Sales, to Golden Gate Exposition Company, to Income Account			
1939-40	$40,609.69		
Prior	29,800.50	70,410.19	
Restore Palo Alto Pipe Line Account to Surplus Account:			
Original Cost	234,271.90		
Previously Taken Into Account	66,967.38	167,304.52	
Cancelled Pay Warrant		62.03	
Deduct:			
Accounts Receivable—Rent Item		671.02	
Adjustment of Plant Valuation		294.00	
Surplus Account After Audit Adjustment—June, 1940		$13,291,946.78	
Add:			
Net Income for 12 Months Ended June 30, 1941		1,888,501.60	
Sale of Land		7,068.33	
Adjustment in Plant Valuation		775.00	
Damage Claim Not Allowed		422.29	
			$15,188,714.00
Deduct:			
Contribution to General Fund for Hetch Hetchy Bond Redemption and Interest		$454,425.00	
Contribution to Hetch Hetchy Water Supply Operating Expenses		223,414.30	
Recreation Department Water Bills—June, 1939, to June, 1940	28,436.53		
Corral Hollow Pipe and Fittings Used in Palo Alto Pipe Line Previously Credited to Surplus, Now Set Up as An Accounts Payable	88,942.18		
Other	154.00	117,532.71	795,372.01
Surplus—June 30, 1941			$14,393,341.99

EXHIBIT D

COMPOSITION OF SURPLUS—CONDENSED

June 30, 1941

Initial Surplus—March 3, 1930:			
Amortization Contribution (Spring Valley)	$4,152,652.24		
Valuation of Municipal Water Works	100,000.00		
	$4,252,652.24		
Less Additional Allowance for Depreciation—March 1, 1920, to March 3, 1930	2,327,916.67	$1,924,735.57	
Additions:			
Net Profit—March 3, 1930, to June 30, 1941	$20,339,816.67		
Miscellaneous and Year-to-Year Adjustments	3,657,081.25	23,996,897.92	
Grants Earned on Federal Public Works Projects—Docket 1510	$2,245,000.00		
Grants Earned on Federal Public Works Projects—Docket 1132	113,987.60	2,358,987.60	
Bond Premiums, Less Bond Expense—1933 Water Distribution Bonds		808,292.40	
60 Per Cent of Cost of Palo Alto Pipe Line a/c Agreement with City of Palo Alto		217,207.04	
Salvage Value of Newark-San Lorenzo Pipe Line Transferred from Hetch Hetchy Water Supply		323,723.34	
Federal Government Expenditures for Labor, Construction of a Roof Over Crystal Springs Aqueduct		20,091.00	
Depreciated Value of 12-Inch Mains Transferred from San Francisco Airport		20,898.83	
Cash Received Under Agreements—Moffett Field and California Water Service Company		70,000.00	$29,740,833.70
Deductions:			
Contributions to General Fund	$10,187,589.10		
Less: Contributions from General Fund a/c P. W. A. Interest and Redemption	84,298.00	$10,103,291.10	
Contributions to Hetch Hetchy Water Supply	$3,109,376.04		
Contributions to Hetch Hetchy Power Division	1,228.59	3,110,604.63	
Lands Contributed:			
To City and County of San Francisco for Streets and Boulevards	$137,811.07		
To Joint Highway Commission for Streets and Boulevards in San Mateo County	5,310.00	143,121.07	
Excess of Adjusted Book Value of Plant Appraisal—December 31, 1937		1,990,474.91	15,347,491.71
Surplus—June 30, 1941			$14,393,341.99

EXHIBIT E

COMPARATIVE STATEMENT OF OPERATING EXPENSES

For the Fiscal Years Ended June 30, 1941, and June 30, 1940

	Fiscal Year Ended June 30	
Source of Water Supply Expenses:	1941	1940
Superintendence	$21,506.00	$21,262.17
Operating Labor	2,442.60	27,922.18
Operating Supplies and Expenses	41,191.81	15,924.45
Repairs and Maintenance—Buildings, Fixtures, and Grounds	102,277.34	93,066.08
Repairs—Surface Facilities	13,231.27	24,742.02
Repairs—Miscellaneous Equipment	263.01	296.78
	$180,912.03	$183,213.68
Pumping Expenses:		
Labor—Pumping	$38,412.65	$40,660.85
Labor—Miscellaneous	4,992.80	4,190.78
Fuel for Steam	12,114.99	14,926.77
Power Purchased	61,101.90	79,009.46
Lubricants	32.45	80.70
Miscellaneous Supplies and Expense	1,474.32	1,566.21
Repairs—Primary Pumping Equipment	8,241.39	7,846.13
Repairs—Boilers and Equipment	584.31	904.20
Repairs—Miscellaneous Equipment	157.34	1,656.23
Other Repairs and Gardening	5,218.52	4,406.03
	$132,330.67	$155,247.36
Purification Expenses:		
Labor (and Superintendence)	$6,435.80	$25,146.33
Supplies and Expense	58,116.08	38,700.59
Repairs—Plant, Structures, and Equipment	4,268.80	2,032.06
Repairs and Maintenance—Roads and Trails	1,014.74	1,715.29
	$69,835.42	$67,594.27
Transmission and Distribution Expense:		
Superintendence	$36,789.80	$34,165.21
Patrolling Storage Facilities	14,156.94	13,025.91
Meters and Fittings Department	54,988.84	51,950.91
Street Department	16,510.69	14,940.41
Consumers' Premises Expenses	14,280.37	12,897.27
Miscellaneous Supplies and Expenses	7,468.03	8,146.43
Repairs—Transmission Mains and Canals	23,566.10	11,008.85
Repairs—Reservoirs, Tanks, and Standpipes	9,661.44	11,348.50
Repairs—Distribution Mains and Canals	58,101.21	73,522.31
Repairs—Service Connections	63,989.05	68,691.11
Repairs—Distribution Buildings	24,863.53	19,904.34
Repairs—Distribution Equipment	658.11	1,116.87
	$325,034.11	$320,718.12

EXHIBIT E—Continued

	Fiscal Year Ended June 30 1941	1940
Commercial Expenses:		
Collections	$115,583.45	$114,973.80
Reading Meters	38,553.79	38,105.87
Bookkeeping Department	106,561.12	106,703.91
General	37,725.49	34,491.24
Inspection and Service	43,425.64	47,148.35
Shipping	13,433.06	14,328.35
	$355,282.55	$355,751.52
Administrative and General Expense:		
Salaries—General Officers	$19,191.02	$18,684.27
Salaries—General Office Clerks	44,081.52	45,543.20
Miscellaneous Supplies and Expense	5,313.80	10,052.38
Injuries and Damages	5,716.37	3,028.85
Retirement System Contributions	38,006.73	38,217.82
Mason Street Building Expense	23,341.49	21,791.78
Telephone Service	16,370.68	15,689.23
Guest Cottages and Rest Room	1,495.98	1,858.44
General Engineering	51,620.67	43,252.90
Hydrography	1,443.77	2,399.53
Miscellaneous	1,303.03	827.54
Compensation Insurance	9,168.17	8,901.19
Other Insurance	4,879.12	4,723.56
Repairs—Mason Street Building	8,744.96	5,471.23
Repairs—Telephone System	5,894.17	4,909.44
Professional Services	7,650.00	7,300.00
Public Utilities Commission Expense	57,940.00	44,622.32
Property Taxes (Outside of San Francisco)	248,416.20	235,503.86
	$550,577.68	$512,777.54
	$1,613,972.46	$1,595,302.49

SCHEDULE No. 1

FIXED CAPITAL IN SERVICE

		Balance June 30, 1940	Balance June 30, 1941	Net Additions 1940	1941
1010	Intangible Capital	$3,183,224.00	$3,183,224.00	.....	
1015	Landed Capital	12,380,981.72	12,386,433.71	$5,451.99	
1020	Buildings, Structures, and Grounds	1,097,670.06	1,098,622.17	952.11	
1025	Source of Supply	19,922,406.38	19,929,407.50	7,001.12	
1030	Pump Station Equipment	572,946.05	573,967.45	1,021.40	
1035	Purification	142,367.10	143,327.63	960.53	
1040	Transmission and Distribution Within San Francisco	31,931,523.01	32,285,756.87	354,233.86	
1041	Transmission and Distribution Outside San Francisco	380,900.63	380,939.03	38.40	
1045	General Equipment	115,029.85	125,011.81	9,981.96	
1046	Automotive Equipment	115,586.88	121,225.02	5,638.14	
1050	Undistributed Construction Costs	1,253,831.16	1,253,831.16	.....	
		$71,096,466.84	$71,481,746.35	$385,279.51	
1200	Less Reserve for Depreciation	21,169,568.00	22,090,521.81		
		$49,926,898.84	$49,391,224.54		
1400	Construction Work in Progress	79,494.45	42,701.98		
		$50,006,393.29	$49,433,926.52		

SCHEDULE No. 2

COMPARISON OF ACTUAL REVENUES AND EXPENDITURES WITH BUDGET ESTIMATES

Fiscal Year 1940-1941

	Month of June, 1941			Twelve (12) Months to June 30, 1941		
Description	Budget	Revenues Expenditures Accruals	Increase or *Decrease*	Budget After Modifications	Revenues Expenditures Accruals	Increase or *Decrease*
City Distribution Division	$31,836.00	$29,943.74	*$1,892.26*	$382,001.00	$344,257.99	*$37,743.01*
Peninsula Division	22,599.00	22,633.38	34.38	271,158.00	242,446.41	*28,711.59*
Alameda Division	8,854.00	9,643.15	789.15	106,258.00	91,987.44	*14,270.56*
Standby Charge and Purchase of Water	64,440.34	64,440.34	.....	773,284.00	773,284.00	.....
Purification Division—General	1,845.00	1,668.15	*176.85*	22,120.00	20,881.04	*1,238.96*
Commercial Division Expenses	31,992.00	32,919.54	927.54	383,904.00	369,306.56	*14,597.44*
General and Miscellaneous	13,877.00	15,229.33	1,352.33	166,544.00	169,254.53	2,710.53
Public Utilities Commission Expenses	4,825.00	4,828.29	3.29	57,940.00	57,940.00	.....
Services of Bureau of Engineering	1,214.13	2,243.93	1,029.80	14,570.00	9,361.10	*5,208.90*
Advisory and Consulting Expenses	610.00	1,650.00	1,040.00	7,300.00	7,650.00	350.00
Walnut Orchard Expenses	1,927.00	662.21	*1,264.79*	23,014.00	13,101.02	*9,912.98*
Agricultural Division Expenses	1,069.00	936.68	*132.32*	12,828.00	9,448.79	*3,379.21*
Insurance Compensation	625.00	4,058.63	3,433.63	7,500.00	9,245.45	1,745.45
Insurance—Other	572.00	*174.15*	*746.15*	6,895.00	4,879.12	*2,015.88*
Injuries and Damages	500.00	2,276.46	1,776.46	6,000.00	5,716.37	*283.63*
Property Taxes	21,500.00	20,701.35	*798.65*	258,000.00	248,416.20	*9,583.80*
Pensions	3,335.00	2,941.01	*393.99*	40,000.00	38,006.73	*1,993.27*
Miscellaneous	40.00	54.68	14.68	500.00	749.20	249.20
Operating Budget Totals	$211,660.47	$216,656.72	$4,996.25	$2,539,816.00	$2,415,931.95	*$123,884.05*

Equipment	3,537.00	1,794.13	*1,742.87*	42,400.00	40,657.13	*1,742.87*
Replacements and Reconstructions	3,750.00	3,750.00	.....	45,000.00	45,000.00	.....
Additions and Betterments	42,136.00	42,136.00	.....	505,643.00	505,643.00	.....
Bond Interest and Redemption	268,065.00	268,065.00	.....	3,216,780.00	3,216,780.00	.....
Contribution—Hetch Hetchy Water Supply—Operation	19,327.00	29,217.75	9,890.75	234,393.00	223,413.30	*10,979.70*
Contribution—Hetch Hetchy Water Supply—B. I. & R.	47,458.00	*67,643.00*	*115,101.00*	569,526.00	454,425.00	*115,101.00*
Sub-Total	$384,273.00	$277,319.88	*$106,953.12*	$4,613,742.00	$4,485,918.43	*$127,823.57*
Grand Total	$595,933.47	$493,976.60	*$101,956.87*	$7,153,558.00	$6,901,850.38	*$251,707.62*
Revenues:						
Sale of Water	605,929.00	617,012.40	11,083.40	6,762,600.00	6,771,275.53	8,675.53
Other Income	8,330.00	8,033.01	*296.99*	100,000.00	101,827.26	1,827.26
Surplus Prior Year	16,670.00	16,670.00	.....	200,000.00	200,000.00	.....
	$630,929.00	$641,715.41	$10,786.41	$7,062,600.00	$7,073,102.79	$10,502.79
Net Savings Over Budget Estimates						$262,210.41

Total Appropriated for Year		$7,215,600.00
Supplemental Appropriations—	Bill No. 854, Ordinance 786, August 26, 1940	*153,000.00*
	Bill No. 940, Ordinance 855, October 14, 1940	638.00
	Bill No. 1045, Ordinance 1002, January 1, 1941	11,070.00
	Bill No. 1081, Ordinance 1038, February 10, 1941	29,250.00
	Bill No. 1080, Ordinance 1059, March 3, 1941	50,000.00
	**Bill No. 1130, Ordinance 1088, March 24, 1941	4,500.00
		$7,158,058.00
	**Less Reserve—Offset	4,500.00
		$7,153,558.00

Italic figures denote loss and deficiency.

SCHEDULE No. 3

SAN FRANCISCO WATER DEPARTMENT
CASH AND OUTSTANDING WARRANTS

June 30, 1941

	Treasurer's Balance	Outstanding Warrants
Water Operating Fund	$246,000.95	$102,336.46
Reconstruction and Replacement Fund	176,377.76	333.88
Special Deposit Fund	173,486.71	14,206.77
Extension Reserve Fund	559,717.31	386.57
Bond Interest Fund—1928 Issue	698,647.50	.....
Bond Redemption Fund—1928 Issue	1,008,000.00	.....
Land Purchase Fund	49,835.55	.....
Bond Fund—1933	5,939.18	123.23
Bond Interest Fund—1933 Issue	77,820.00	.....
	$2,995,824.96	$117,386.91
Revolving Fund	$29,980.00	

SCHEDULE No. 4

SAN FRANCISCO WATER DEPARTMENT
SUMMARY OF INTER-FUND ACCOUNTS

June 30, 1941

ACCOUNTS RECEIVABLE

Public Service Enterprises:	
Hetch Hetchy Power Operative	$323.83
Hetch Hetchy Water Supply	2,689.71
Municipal Railway	909.59
San Francisco Airport	914.13
	$4,837.26
General City and County:	
Public Utilities Commission—General Office	$94.84
Public Utilities Commission—Bureau of Engineering	25,000.00
General Fund—Fire Department	1,779.32
General Fund—Department of Public Works	383.64
General Fund—Department of Public Streets and Building Lighting	365.76
General Fund—City and County of San Francisco	115,101.00
	$142,724.56

ACCOUNTS PAYABLE

Public Service Enterprises:	
Hetch Hetchy Water Supply	$93,546.16
General City and County:	
Retirement System	$5,557.25
General Fund—Street and Public Buildings Lighting Department	8,683.34
General Fund—P. U. C.—General Office	60.78
General Fund—Recreation Department	15.00
General Fund—Board of Public Works	446.06
City and County of San Francisco—Cash Reserve Fund	400,000.00
	$414,762.43

SCHEDULE No. 5
BOND REDEMPTION AND INTEREST
(On Cash Basis)

Fiscal Year	Redemption: Spring Valley July 1	Redemption: Water Distribution December 1	Redemption: Total	Interest: Spring Valley	Interest: Water Distribution	Interest: Total	Total Redemption and Interest
1940-41	$1,000,000	$563,000	$1,563,000	$1,350,000	$303,780	$1,653,780	$3,216,780
1941-42	1,000,000	563,000	1,563,000	1,305,000	281,260	1,586,260	3,149,260
1942-43	1,000,000	563,000	1,563,000	1,260,000	258,740	1,518,740	3,081,740
1943-44	1,000,000	563,000	1,563,000	1,215,000	236,220	1,451,220	3,014,220
1944-45	1,000,000	563,000	1,563,000	1,170,000	213,700	1,383,700	2,946,700
1945-46	1,000,000	563,000	1,563,000	1,125,000	191,180	1,316,180	2,879,180
1946-47	1,000,000	563,000	1,563,000	1,080,000	168,660	1,248,660	2,811,660
1947-48	1,000,000	563,000	1,563,000	1,035,000	146,140	1,181,140	2,744,140
1948-49	1,000,000	563,000	1,563,000	990,000	123,620	1,113,620	2,676,620
1949-50	1,000,000	563,000	1,563,000	945,000	101,100	1,046,100	2,609,100
1950-51	1,000,000	563,000	1,563,000	900,000	78,580	978,580	2,541,580
1951-52	1,000,000	563,000	1,563,000	855,000	56,060	911,060	2,474,060
1952-53	1,000,000	563,000	1,563,000	810,000	33,540	843,540	2,406,540
1953-54	1,000,000	557,000	1,557,000	765,000	11,020	776,020	2,333,020
1954-55	1,000,000	.....	1,000,000	720,000	.....	720,000	1,720,000
1955-56	1,000,000	.....	1,000,000	675,000	.....	675,000	1,675,000
1956-57	1,000,000	.....	1,000,000	630,000	.....	630,000	1,630,000
1957-58	1,000,000	.....	1,000,000	585,000	.....	585,000	1,585,000
1958-59	1,000,000	.....	1,000,000	540,000	.....	540,000	1,540,000
1959-60	1,000,000	.....	1,000,000	495,000	.....	495,000	1,495,000
1960-61	1,000,000	.....	1,000,000	450,000	.....	450,000	1,450,000
1961-62	1,000,000	.....	1,000,000	405,000	.....	405,000	1,405,000
1962-63	1,000,000	.....	1,000,000	360,000	.....	360,000	1,360,000
1963-64	1,000,000	.....	1,000,000	315,000	.....	315,000	1,315,000
1964-65	1,000,000	.....	1,000,000	270,000	.....	270,000	1,270,000
1965-66	1,000,000	.....	1,000,000	225,000	.....	225,000	1,225,000
1966-67	1,000,000	.....	1,000,000	180,000	.....	180,000	1,180,000
1967-68	1,000,000	.....	1,000,000	135,000	.....	135,000	1,135,000
1968-69	1,000,000	.....	1,000,000	90,000	.....	90,000	1,090,000
1969-70	1,000,000	.....	1,000,000	45,000	.....	45,000	1,045,000
	$30,000,000	$7,876,000	$37,876,000	$20,925,000	$2,203,600	$23,128,600	$61,004,600

Total 1928 Spring Valley Issue.....$41,000,000
Rate of Interest..... 4½%

Total 1933 Water Distribution.....$12,095,000
Rate of Interest..... 4%

SCHEDULE No. 6

OPERATING EXPENSES

RESERVOIRS AND SOURCES

	1937-38	1938-39	1939-40	1940-41
Inside of San Francisco:				
Lake Merced	$5,100.63	$4,509.98	$4,715.04	$4,257.38
Daily Hill Pump Supply Line	.....	.....	.....	21.05
	$5,100.63	$4,509.98	$4,715.04	$4,278.43
Outside of San Francisco:				
Surface Sources				
San Andres Reservoir	$17,946.48	$9,975.50	$9,944.67	$12,821.09
Crystal Springs Reservoir	37,814.45	36,404.45	38,896.05	39,854.55
Pilarcitos Reservoir	15,294.02	16,264.90	21,044.70	17,629.62
Calaveras Reservoir	15,367.70	10,380.96	9,204.08	16,379.57
	$86,422.65	$73,025.81	$79,089.50	$86,684.83
Ground Sources				
Sunol Filter Beds	$8,291.48	$5,885.82	$8,109.27	$8,750.61
Pleasanton Wells	79.80	6.00	198.28	46.57
	$8,371.28	$5,891.82	$8,307.55	$8,797.18
Supply Lines:				
Bay Division Pipe Lines	$14,006.52	$42,344.66	$23,104.48	$11,590.42
Stone Dam Aqueduct	7,111.09	4,020.01	3,487.81	1,518.87
Pilarcitos Aqueduct	379.20	68.90	582.80	457.23
San Andres Aqueduct	.....	21.75	.....	230.65
Crystal Springs Pump Supply Line	123.14	95.47	9.99	579.89
Niles-Irvington Pipe Line	668.70	397.70	174.67	716.09
Niles Supply Line	.....	38.88	317.39	146.52
Upper Alameda Tunnel	415.73	89.05	101.80	188.69
Upper Alameda Creek Diversion Dam	2,385.04	656.01	1,561.17	1,053.65
Calaveras Pipe Line	283.50	277.57	82.94	328.00
	$25,372.92	$48,010.00	$29,423.05	$16,810.01
Alameda System—General Expenses	$15,820.05	$20,393.93	$22,060.73	$23,530.97
Peninsula System—General Expenses	38,434.57	42,276.55	39,617.81	40,810.61
	$54,254.62	$62,670.48	$61,678.54	$64,341.58
Total Source of Supply Expense	$179,522.10	$194,108.09	$183,213.68	$180,912.03

SCHEDULE No. 7

OPERATING EXPENSES

TRANSMISSION AND DISTRIBUTION

	1937-38	1938-39	1939-40	1940-41
ıside of San Francisco:				
City Transmission Lines	$983.09	$211.05	$463.56	$1,513.54
City Distribution Reservoirs	22,937.97	28,619.22	32,223.78	36,756.53
Meter Expenses	58,703.54	50,867.27	47,096.71	49,192.69
Street Department Expenses	15,371.52	13,511.11	14,940.41	16,510.69
Main Repairs	55,428.02	62,522.06	73,449.70	58,101.21
Service Connection Repairs	71,325.33	67,809.97	68,679.01	63,989.05
Repairs to Buildings and Equipment	3,512.03	3,994.34	5,870.50	4,204.17
Miscellaneous Supplies and Expenses	5,954.67	4,385.07	5,341.90	6,517.61
Consumers' Premises Expenses*	.....	.....	.....	.....
Superintendence	33,037.83	34,618.84	35,864.26	36,789.80
Total in San Francisco	$267,254.00	$266,538.93	$283,929.83	$273,575.29
utside of San Francisco:				
Alameda Supply Line—Old Section	.....	.....	$453.53	$793.49
Alameda Supply Line	$559.57	$1,360.43	358.35	267.03
Alameda Transmission Line	4,019.87	3,415.62	2,867.71	3,184.80
San Andres Aqueduct	.....	.....	.....	2,957.03
Crystal Springs Pump Aqueduct	5,673.53	3,360.51	2,874.61	5,847.78
New Crystal Springs Transmission Line	2,651.69	2,602.50	2,332.97	4,150.03
Old Crystal Springs Transmission Line	4,823.27	3,402.60	2,596.59	3,694.76
San Andres Transmission Line No. 1	2,186.01	3,112.16	1,690.75	2,108.62
San Andres Transmission Line No. 2	1,985.10	1,637.74	1,957.40	1,596.86
San Andres Transmission Line No. 3	547.24	806.72	942.16	3,069.34
Palo Alto Pipe Line	.....	195.33	356.89	476.56
Niles Regulating Reservoir	2,415.89	2,177.88	2,574.06	3,113.25
Pleasanton Transmission Line	.....	.....	31.80	122.75
Meter Expenses	4,581.89	4,649.87	4,854.20	5,796.15
Total Outside of San Francisco	$29,444.06	$26,721.36	$23,891.02	$37,178.45
›tal Transmission and Distribution Expenses	$296,698.06	$293,260.29	$307,820.85	$310,753.74
Consumers' Premises Expenses Transferred to Commercial Expenses	$12,964.02	$13,495.07	$12,897.27	$14,280.37

SCHEDULE No. 8

OPERATING EXPENSES

PUMP STATIONS

	1937-38	1938-39	1939-40	1940-4
Inside of San Francisco:				
Steam Plants				
Central	$41,255.56	$39,583.74	$44,339.54	$42,32(
City	423.47	566.28	483.11	8(
Black Point	70.64	686.93	142.00	.....
Clarendon Heights	297.96	540.85	1,750.83	737
Ocean View	.....	28.09	79.47	.....
	$42,047.63	$41,405.89	$46,794.95	$43,137
Electric Pumps				
Bay Bridge Pump—Treasure Island	$895.24	$7,675.73	$7,738.50	$5,262
Precita Valley	158.41	2,439.56	20.08	34
Forest Hill	3,799.56	3,987.91	5,503.89	5,996
Potrero Heights	134.48	222.32	266.15	316
Newcomb Avenue	719.59	609.77	820.38	1,098
Hillside	301.98	402.95	307.35	292
Fairview	84.78	175.26	264.16	257
Lincoln Park	96.21	181.58	315.19	209
Hunters Point	.....	.....	193.97	307
Twin Peaks	541.33	319.85	847.49	336.
Lake Honda Booster	4.67	.....	.....	.....
Leland Avenue	57.16	70.79	1.45	6.
Sunset Booster	2,000.35	1,659.35	349.15	260.
Sunset Source	1,389.12	1,146.93	603.14	410.
Olmstead	482.49	453.99	591.30	605.
Bernal Heights	386.56	94.41	205.56	254.
St. Germain	110.13	155.07	175.30	315.
General	.....	.....	.....	137.
	$11,162.06	$19,595.47	$18,203.06	$16,102.
Total Inside of San Francisco	$53,209.69	$61,001.36	$64,998.01	$59,239.
Outside of San Francisco:				
Belmont Pump	$3,087.03	$3,125.78	$2,645.20	$3.184.
Millbrae Pump	423.07	342.03	530.25	309.
Crystal Springs Pump	60,981.73	85,793.49	75,692.12	60,630.
Bay Division Pump	8,313.50	25,498.41	5,073.23	3,916.
Pleasanton Pump	3,860.71	2,877.18	3,690.33	3,093.
Pleasanton Township Water District	3,050.34	2,044.53	2,285.98	1,715.
San Lorenzo Pump	277.74	219.81	332.24	239.
Total Outside of San Francisco	$79,994.12	$119,901.23	$90,249.35	$73,090.
Total Pumping Expenses	$133,203.81	$180,902.59	$155,247.36	$132,330.

SCHEDULE No. 9
OPERATING EXPENSES

PURIFICATION EXPENSES	1937-38	1938-39	1939-40	1940-41
nside of San Francisco:				
College Hill	$1,264.85	$1,476.21	$1,400.85	$1,906.13
Lake Honda	6,934.39	6,721.93	4,271.68	11.72
Lombard Street	.....	6.18	14.23	97.31
Sunset	.....	215.07	.....	.....
University Mound	2,650.90	1,371.31	1,327.57	1,672.91
Division General	1,147.24	26.64	7.36	282.28
Total Inside of San Francisco	$11,997.38	$9,817.34	$7,021.69	$3,970.35
utside of San Francisco:				
San Andres Reservoir	$5,874.35	$4,540.42	$6,775.70	$6,427.27
Crystal Springs Reservoir	9,989.94	8,058.17	4,749.79	9,785.40
Calaveras Reservoir	9,718.56	9,549.60	8,930.70	12,239.32
Sunol Purification System	1,861.15	2,043.90	1,004.87	1,923.02
Other Outside Stations	920.22	498.41	170.49	147.66
Foothill Division, H. H. W. S.	4,880.56	290.18	.....	.....
Coast Range Division, H. H. W. S.	6,283.77	6,448.17	16,352.29	11,127.87
Millbrae Laboratory	21,256.39	23,101.80	22,588.74	24,214.53
Total Outside of San Francisco	$60,784.94	$54,530.65	$60,572.58	$65,865.07
Total Purification Expenses	$72,782.32	$64,347.99	$67,594.27	$69,835.42

SCHEDULE No. 10
OPERATING EXPENSES

	1937-38	1938-39	1939-40	1940-41
ommercial Expenses:				
Collections	$113,001.22	$113,841.97	$114,973.80	$115,583.45
Reading Meters	33,476.94	34,466.32	38,105.87	38,553.79
Bookkeeping Department	99,242.59	106,249.31	106,703.91	106,561.12
General and Miscellaneous	33,097.28	32,944.42	34,491.24	37,725.49
Inspection and Service	50,465.42	47,193.84	47,148.35	43,425.64
Shipping	14,283.38	14,402.13	14,328.35	13,433.06
Consumers' Premises Expenses*	12,964.92	13,495.97	12,897.27	14,280.37
	$356,531.75	$362,593.96	$368,648.79	$369,562.92
eneral and Miscellaneous:				
Salaries of General Officers	$18,399.84	$18,399.84	$18,684.27	$19,191.02
Salaries of General Office Clerks	40,628.25	41,231.95	45,543.20	44,081.52
Miscellaneous Supplies and Expenses	8,908.86	10,039.18	10,123.92	5,867.63
Public Utilities Commission Expenses	52,522.00	45,209.10	44,622.32	57,940.00
General Engineering	33,689.62	32,556.72	43,252.90	51,620.67
Hydrography	2,104.77	2,809.79	2,399.53	1,443.77
Telephone Services	15,294.47	15,563.54	15,689.23	16,370.68
Mason Street Building Operations	21,568.76	21,876.60	21,791.78	23,341.49
Rest Room and Guest Cottages	2,245.17	1,521.98	1,858.44	1,495.98
Advisory and Consulting Expenses	7,293.75	7,300.00	7,300.00	7,650.00
Repairs—Mason Street Building	11,011.56	7,195.67	5,471.23	8,744.96
Repairs—Telephone System	8,774.90	5,893.49	4,909.44	5,894.17
	$222,441.95	$209,597.86	$221,646.26	$243,641.89
ther Operating Expenses:				
Insurance—Compensation	$4,683.83	$8,737.60	$8,901.19	$9,168.17
Insurance—Other	5,282.72	5,952.15	4,723.56	4,879.12
Injuries and Damages	1,129.46	1,853.59	3,028.85	5,716.37
Pensions	39,860.19	37,883.23	38,217.82	38,006.73
Property Taxes	240,130.61	257,488.21	235,503.86	248,416.20
Miscellaneous—General	749.20	766.70	756.00	749.20
	$291,836.01	$312,681.48	$291,131.28	$306,935.79
epairs—Extraordinary:				
Calaveras Spillway	.....	$51,973.71	.....	.....
Newark Slough Submarine Pipe Line	.....	23,283.58	.....	.....
rofessional Services—Extraordinary:				
Depreciation Survey	.....	$23,017.12	.....	.....
	.....	$98,274.41	.....	.....
	$514,277.96	$620,553.75	$512,777.54	$550,577.68

*Transferred from Transmission and Distribution Expenses—Schedule No. 7.

SCHEDULE No. 11

OPERATING EXPENSES—1940-41

City Distribution Division

PUMPING STATIONS ACCOUNT

STEAM PUMPS	Labor	Use of Equipment	Materials and Supplies	Fuel or Power	Lubricants	Machine Shop	Contractual Service	Total
Central	$28,225.10	$60.40	$2,315.82	$11,189.17	$18.35	$483.83	$27.56	$42,320.23
City	79.50	.60	.....	.....	.....	.....	.....	80.10
Clarendon Heights	311.73	21.08	43.92	186.86	.....	17.94	155.69	737.22
	$28,616.33	$82.08	$2,359.74	$11,376.03	$18.35	$501.77	$183.25	$43,137.55
ELECTRIC PUMPS								
Bay Bridge—Treasure Island	$1,481.46	$25.20	$52.19	$3,374.88	.....	$94.45	$234.54	$5,262.72
Precita Valley	33.13	1.20	.53	.....	.....	.....	.....	34.86
Forest Hills	670.74	74.55	594.78	3,890.81	.....	760.57	5.00	5,996.45
Potrero Heights	152.07	22.50	.36	99.64	.....	42.04	.....	316.61
Newcomb Avenue	270.56	31.80	157.80	620.24	$1.80	16.13	.....	1,098.33
Hillside	107.37	16.80	6.74	124.48	.....	36.82	.....	292.21
Fairview	174.50	17.95	21.35	22.56	.....	20.67	.....	257.03
Lincoln Park	144.68	20.03	.36	17.88	.....	26.44	.....	209.39
Hunters Point	251.84	34.80	1.07	12.52	.....	6.80	.....	307.03
Twin Peaks	114.71	15.45	19.70	157.64	.....	29.46	.....	336.96
Leland Avenue	6.62	.....	.07	.....	.....	.....	.....	6.69
Sunset Booster	240.77	10.05	1.04	.....	.....	7.56	1.11	260.53
Sunset Source	147.00	11.85	19.96	.....	.....	231.72	.....	410.53
Olmstead Avenue	198.81	24.30	32.65	334.18	.....	15.10	.....	605.04
Bernal Heights	175.54	21.60	1.34	53.52	.....	2.70	.....	254.70
St. Germain	190.04	20.85	14.46	24.20	.....	66.35	.....	315.90
General	20.88	2.40	113.64	.....	.....	.....	.50	137.42
	$4,380.72	$351.33	$1,038.04	$8,732.55	$1.80	$1,356.81	$241.15	$16,102.40

SCHEDULE No. 12

OPERATING EXPENSES—1940-41

City Distribution Division

SOURCE OF SUPPLY	Labor	Use of Equipment	Materials and Supplies	Machine Shop	Contractual Service	Paving	Miscellaneous	Total
Lake Merced	$3,921.45	$71.75	$165.80	$37.32	$61.06	.....	.....	$4,257.38
Daly Hill Pump Supply Line	3.25	.....	17.80	.....	.....	.....	.....	21.05
	$3,924.70	$71.75	$183.60	$37.32	$61.06	.....	.....	$4,278.43
PURIFICATION								
College Hill	$62.51	$9.60	$1,160.41	$473.00	$200.61	.....	.....	$1,906.13
Lake Honda	5.63	.60	5.49	.....	.....	.....	.....	11.72
Lombard Street	19.94	.....	77.37	.....	.....	.....	.....	97.31
University Mound	108.00	9.15	1,555.76	.....	.....	.....	.....	1,672.91
General	27.75	2.45	10.95	241.13	.....	.....	.....	282.28
	$223.83	$21.80	$2,809.98	$714.13	$200.61	.....	.....	$3,970.35
TRANSMISSION AND DISTRIBUTION								
City Transmission Lines	$782.34	$59.60	$179.16	$224.57	$266.67	.....	$1.20	$1,513.54
City Reservoirs	32,035.50	1,186.90	2,185.28	878.30	431.72	.....	$38.83	36,756.53
Meter Expense	24,191.25	1,792.25	17,477.19	675.13	208.63	$4,836.29	11.95	49,192.69
Street Department Expenses	15,558.37	826.15	65.17	1.89	59.11	.....	.....	16,510.69
Miscellaneous Supplies and Expenses	3,332.75	115.95	1,154.55	766.71	1,135.31	.....	12.34	6,517.61
Superintendence	35,042.46	775.22	495.60	7.68	468.84	.....	.....	36,789.80
Consumers' Premises Expenses*	.....	.....	.....	.....	.....	.....	.....	.....
Repairs—Distribution Mains	38,529.18	2,818.37	8,522.47	4,694.62	597.10	2,816.07	123.40	58,101.21
Repairs—Service Connections	38,264.78	5,527.78	7,352.57	1,900.43	4,403.24	6,491.95	48.30	63,989.05
Repairs—Buildings and Equipment	1,889.35	25.13	1,452.38	679.60	157.71	.....	.....	4,204.17
	$189,625.98	$13,127.35	$38,884.37	$9,828.93	$7,728.33	$14,144.31	$236.02	$273,575.29
Total City Distribution Division	$193,774.51	$13,220.90	$41,877.95	$10,580.38	$7,990.00	$14,144.31	$236.02	$281,824.07

*Consumers' Premises Expenses Transferred to Commercial Expenses

SCHEDULE No. 13

OPERATING EXPENSES—1940-41

Outside of San Francisco

	Labor	Use of Equipment	Materials and Supplies	Contractual Service	Miscel-laneous	Total
SOURCE OF SUPPLY						
SURFACE SOURCES						
San Andres Reservoir	$10,633.13	$288.83	$801.95	$1,015.20	$81.98	$12,821.09
Crystal Springs Reservoir	31,946.89	1,547.01	3,034.86	3,303.62	22.17	39,854.55
Pilarcitos Reservoir	13,329.31	646.93	2,125.32	1,418.68	109.38	17,629.62
Calaveras Reservoir	12,157.53	717.94	653.34	2,703.62	147.14	16,379.57
	$68,066.86	$3,200.71	$6,615.47	$8,441.12	$360.67	$86,684.83
GROUND SOURCES						
Sunol Filter Beds	$5,556.26	$151.88	$1,321.05	$1,321.58	$399.84	$8,750.61
Pleasanton Wells	41.09	4.17	1.31	.....	.....	46.57
	$5,597.35	$156.05	$1,322.36	$1,321.58	$399.84	$8,797.18
SUPPLY LINES						
Bay Division Pipe Lines	$8,241.84	$1,167.57	$1,648.56	$532.45	.....	$11,590.42
Stone Dam Aqueduct	1,443.66	59.67	9.54	6.00	.....	1,518.87
Pilarcitos Aqueduct	393.32	25.29	38.62	.....	.....	457.23
San Andres Aqueduct	201.13	26.52	.....	3.00	.....	230.65
Crystal Springs Supply Line	508.45	14.04	57.40	.....	.....	579.89
Niles-Irvington Pipe Line	534.58	175.56	5.95	.....	.....	716.09
Upper Alameda Tunnel	188.69	.....	.....	.....	.....	188.69
Upper Alameda Creek Dam	976.11	77.31	.23	.....	.....	1,053.65
Calaveras Pipe Line	305.27	20.04	2.69	.....	.....	328.00
Niles Supply Line	136.80	9.72	.....	.....	.....	146.52
	$12,929.85	$1,575.72	$1,762.99	$541.45	.....	$16,810.01
GENERAL EXPENSES						
Alameda System	$18,276.32	$949.48	$3,532.56	$772.61	.....	$23,530.97
Peninsula System	34,881.08	1,557.28	6,291.81	2,489.19	*$4,408.75**	40,810.61
	$53,157.40	$2,506.76	$9,824.37	$3,261.80	*$4,408.75*	$64,341.58
Total Source of Supply	$139,751.46	$7,439.24	$19,525.19	$13,565.95	*$3,648.24*	$176,633.60

*Refunds (Board, Room, and Lodging)

Italic figures denote loss and deficiency.

SCHEDULE No. 14

OPERATING EXPENSES—1940-41

Outside of San Francisco

	Labor	Use of Equipment	Materials and Supplies	Fuel or Power	Machine Shop	Contractual Service	Total
PUMPING STATIONS							
Belmont Pump	$2,965.34	$69.09	$85.99	$64.43	.....	.....	$3,184.85
Millbrae Pump	299.94	.....	9.94	.....	.....	.....	309.88
Crystal Springs Pump	8,516.29	534.06	799.70	50,114.64	.....	$666.27	60,630.96
Bay Division Pump	3,572.11	176.52	15.55	152.18	.....	.....	3,916.36
Pleasanton Pumps	1,882.70	85.86	252.61	847.18	.....	25.02	3,093.37
Pleasanton Township Water District	704.99	6.93	.....	1,004.06	.....	.....	1,715.98
San Lorenzo Pump	73.60	165.72	.....	.....	.....	.....	239.32
Outside Pumping Expenses	$18,014.97	$1,038.18	$1,163.79	$52,182.49	.....	$691.29	$73,090.72
PURIFICATION							
San Andres Reservoir	$897.45	$152.37	$4,932.59	.....	$71.17	$373.69	$6,427.27
Crystal Springs Reservoir	2,243.35	221.01	6,924.74	.....	.....	396.30	9,785.40
Calaveras Reservoir	2,287.66	428.61	8,332.16	.....	321.04	869.85	12,239.32
Sunol Purification System	1,353.52	57.09	512.41	.....	.....	.....	1,923.02
Other Outside Stations	131.86	2.79	13.01	.....	.....	.....	147.66
Coast Range Division—Hetch Hetchy Water Supply	1,887.93	487.78	7,575.97	.....	6.71	1,169.48	11,127.87
Millbrae Laboratory	18,402.37	1,900.34	1,591.55	.....	101.97	2,218.30	24,214.53
Outside Purification Expenses	$27,204.14	$3,249.99	$29,882.43	.....	$500.89	$5,027.62	$65,865.07
TRANSMISSION AND DISTRIBUTION							
Alameda Supply Line—Old Section	$467.62	$226.95	$31.23	.....	.....	$67.69	$793.49
Alameda Supply Line	24.68	237.35	.....	.....	.....	5.00	267.03
Alameda Transmission Line	2,532.59	163.78	265.41	.....	$26.82	196.20	3,184.80
San Andres Aqueduct	2,608.93	302.10	.....	.....	.....	46.00	2,957.03
Crystal Springs Pump Aqueduct	5,450.93	197.52	196.33	.....	.....	3.00	5,847.78
Crystal Springs Transmission Line (New)	3,722.11	205.60	220.73	.....	.....	1.59	4,150.03
Crystal Springs Transmission Line (Old)	2,735.01	355.98	459.92	.....	.....	143.85	3,694.76
San Andres Transmission Line No. 1	1,947.15	39.21	79.30	.....	9.05	33.91	2,108.62
San Andres Transmission Line No. 2	1,432.22	51.71	102.63	.....	.....	10.30	1,596.86
San Andres Transmission Line No. 3	2,364.20	132.13	412.20	.....	65.53	95.28	3,069.34
Palo Alto Pipe Line	250.31	52.29	28.96	.....	.....	145.00	476.56
Niles Regulating Reservoir	2,916.65	52.29	144.31	.....	.....	.....	3,113.25
Pleasanton Transmission Line	105.55	7.92	9.28	.....	.....	.....	122.75
Meter Expense	3,626.36	796.72	1,307.45	.....	.....	65.62	5,796.15
Outside Transmission Line Expenses	$30,184.31	$2,821.55	$3,257.75	.....	$101.40	$813.44	$37,178.45

SCHEDULE No. 15

OPERATING EXPENSES—1940-41

COMMERCIAL EXPENSES	Labor	Use of Equipment	Materials and Supplies	Machine Shop	Contractual Services: Bank Collections	Contractual Services: Other	Fixed Charges	Miscellaneous	Total
Collections	$84,937.28	$1,424.06	$1,491.81	.....	$24,519.00	$3,211.30	.....	.....	$115,583.45
Reading Meters	36,814.89	576.35	439.42	.....	.....	723.13	.....	.....	38,553.79
Bookkeeping Department	102,211.68	.....	3,428.85	.....	.....	920.59	.....	.....	106,561.12
General and Miscellaneous	24,769.42	475.86	1,201.76	$331.30	.....	10,947.15	.....	.....	37,725.49
Inspection and Service	36,001.40	4,937.45	993.44	90.22	.....	1,403.13	.....	.....	43,425.64
Shipping	9,364.53	237.34	32.46	.....	.....	3,798.73	.....	.....	13,433.06
Consumers' Premises Expenses*	13,996.14	9.80	116.18	.....	.....	158.25	.....	.....	14,280.37
	$308,095.34	$7,660.86	$7,703.92	$421.52	$24,519.00	$21,162.28	.....	.....	$369,562.92
GENERAL AND MISCELLANEOUS									
Salary of General Officers	$19,191.02	.....	.....	.....	.....	.....	.....	.....	$19,191.02
Salary of General Office Clerks	44,081.52	.....	.....	.....	.....	.....	.....	.....	44,081.52
Miscellaneous Supplies and Expenses	1,211.96	$5.95	$1,337.85	.....	.....	$3,164.92	$146.95	.....	5,867.63
Public Utilities Commission Expenses	.....	.....	.....	.....	.....	.....	.....	$57,940.00	57,940.00
General Engineering	33,836.04	2,446.08	1,775.45	.....	.....	8,700.26	.....	4,862.84	51,620.67
Hydrography	992.23	25.68	26.52	.....	.....	399.34	.....	.....	1,443.77
Telephone Services	8,295.01	.....	.....	.....	.....	8,075.67	.....	.....	16,370.68
Mason Street Building Operations	15,699.33	.....	733.22	.....	.....	6,908.94	.....	.....	23,341.49
Rest Room and Guest Cottages	1,026.86	.....	142.54	.....	.....	326.58	.....	.....	1,495.98
Advisory and Consulting Expenses	.....	.....	.....	.....	.....	7,650.00	.....	.....	7,650.00
Repairs—Mason Street Building	1,060.08	105.80	882.64	$1,024.36	.....	5,672.08	.....	.....	8,744.96
Repairs—Telephone System	4,750.98	785.26	305.02	.....	.....	52.91	.....	.....	5,894.17
	$130,145.03	$3,368.77	$5,203.24	$1,024.36	.....	$40,950.70	$146.95	$62,802.84	$243,641.89
OTHER OPERATING EXPENSES									
Insurance—Compensation	.....	.....	.....	.....	.....	.....	$9,168.17	.....	$9,168.17
Insurance—Other	.....	.....	.....	.....	.....	.....	4,879.12	.....	4,879.12
Injuries and Damages	.....	.....	.....	.....	.....	.....	5,716.37	.....	5,716.37
Pensions	.....	.....	.....	.....	.....	.....	38,006.73	.....	38,006.73
Property Taxes	.....	.....	.....	.....	.....	.....	248,416.20	.....	248,416.20
Miscellaneous	.....	.....	.....	.....	.....	.....	749.20	.....	749.20
	.....	.....	.....	.....	.....	.....	$306,935.79	.....	$306,935.79
	$130,145.03	$3,368.77	$5,203.24	$1,024.36	.....	$40,950.70	$307,082.74	$62,802.84	$550,577.68

*Transferred from Transmission and Distribution Expenses.

SCHEDULE No. 16

ADDITIONS, BETTERMENTS AND REPLACEMENTS—1940-41

		Retirements	Additions	Labor	Use of Equipment	Contract Payments	Land and Equipment	Materials and Supplies	Contractual Services	Depart-mental Overhead	Paving
1015	Landed Capital										
	Purchase of Land	.....	$15,299.99	.....	.....	.....	$15,299.99	.....	.....	.....	.....
	Sale of Land	$9,848.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
1020	Buildings, Structures, and Grounds										
	Additions	.....	3,387.11	$490.01	$39.82	.....	2,117.74	$323.50	$344.02	$72.02	.....
	Retirements	2,435.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
1025	Source of Water Supply										
	Additions	.....	7,153.12	885.63	71.96	.....	5,170.44	42.10	853.19	129.80	.....
	Retirements	152.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
1030	Pumping Station Equipment										
	Additions	.....	1,021.40	139.88	3.44	.....	429.79	369.39	57.74	21.16	.....
1035	Purification Capital										
	Additions	.....	960.53	362.02	.60	.....	203.75	350.63	4.75	38.78	.....
1040	Transmission and Distribution										
	Main Extensions—City Pipe System	3,250.51	248,605.79	31,747.30	2,129.40	$83,890.05	505.94	117,312.15	4,841.78	4,762.17	$3,417.00
	Meters Installed—C. D. D.	.....	59,661.75	4,098.54	449.63	.....	43,166.26	10,317.28	73.60	645.12	911.32
	Services Installed—C. D. D.	.....	46,718.41	19,911.23	4,342.77	.....	.....	10,185.15	29.94	2,985.43	9,263.89
	Main Extensions—Outside San Francisco	.....	38.40	38.40	.....	.....	.....	.....	.....	.....	.....
	Meters Installed—Outside San Francisco	.....	1,463.19	328.84	57.83	.....	720.03	356.49	.....	.....	.....
	Services Installed—Outside San Francisco	.....	1,035.23	535.13	81.72	.....	.....	394.76	22.17	1.45	.....
1045	General Equipment										
	Additions	.....	16,881.96	.....	.....	.....	16,881.96	.....	.....	.....	.....
	Retirements	6,900.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
1046	Automobiles										
	New Equipment and Replacements	.....	16,325.93	.....	.....	.....	16,325.93	.....	.....	.....	.....
	Retirements—June 30, 1941	10,687.79	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Grand Total—Gross	$33,273.30	$418,552.81	$58,536.98	$7,177.17	$83,890.05	$100,821.83	$139,651.45	$6,227.19	$8,655.93	$13,592.21
	Net Increase	385,279.51									
		$418,552.81	418,552.81								

APPENDIX

TO

REPORT OF SAN FRANCISCO WATER DEPARTMENT

CONTENTS

WATER PRODUCTION DIVISION

Table No. 1	Rainfall by Months Seasons 1937-38 to 1940-41
Table No. 1-A	Seasonal Rainfall—Watershed Stations Seasons 1937-38 to 1940-41
Table No. 2	Storage in Million Gallons
Table No. 3	Water Drawn from Hetch Hetchy and Auxiliary Sources
Table No. 4	Seasonal Draft on Surface Storage and Auxiliary Sources
Table No. 5	Consumption in Million Gallons Per Day
Table No. 5-A	Average Daily Consumption Since 1865
Table No. 6	Delivery Through Pipe Lines in Million Gallons Daily
Table No. 7	Source of Water Transported Across San Francisco Bay
Table No. 8	Comparative Pumping Costs

CITY DISTRIBUTION DIVISION

Table No. 9	Average Daily Consumption by Districts
Table No. 9-A	Peak Consumption by Districts
Table No. 10	Unit Cost for Meter Maintenance
Table No. 11	Unit Cost of Meter Installation
Table No. 12	Unit Cost of Service Connection
Table No. 13	Pipe Record for Fiscal Year
Table No. 13-A	Valve Record

ENGINEERING DIVISION

Table No. 14	Contract Data

WATER SALES DIVISION

Table No. 15	Gross Metered Service, Revenue, Etc.
Table No. 15-A	Charges of Non-Paying Municipal Accounts
Table No. 15-B	Charges of Paying Municipal Accounts
Table No. 16	Meters Installed—San Francisco District
Table No. 16-A	Meters Installed—Suburban District
Table No. 17	Street Main Taps and Service Connections Record
Table No. 18	Official Meter Tests
Table No. 19	Record of Bad Water Complaints
Table No. 20	Record of No Water Complaints
Table No. 21	Record of Building Permits
Table No. 22	Number of Building Permits
Table No. 23	Contract Jobs Handled

AGRICULTURAL DIVISION

Table No. 24	Returns and Expenses—Agricultural Division

TABLE No. 1
SAN FRANCISCO RAINFALL BY MONTHS
U. S. Weather Bureau

Month	Season 1937-38	Season 1938-39	Season 1939-40	Season 1940-41	Normal
July	T	0.01	T	T	0.02
August	T	0	T	T	0.01
September	T	0.15	1.06	0.59	0.45
October	0.90	1.33	0.17	1.05	1.12
November	2.46	0.88	0.20	2.22	2.35
December	3.73	1.48	1.05	6.25	3.95
January	2.65	3.07	9.98	8.24	4.54
February	8.49	1.94	7.81	6.71	3.85
March	5.73	2.62	5.32	4.75	3.14
April	1.52	0.42	0.94	4.05	1.61
May	T	0.63	0.63	1.18	0.80
June	0	T	0.01	0.01	0.18
Totals	25.48	12.53	27.17	35.05	22.02

"T" trace, amount too small to measure. 1940-41 Season—159.2% of normal.

TABLE No. 1-A
SEASONAL RAINFALL—WATERSHED STATIONS
Water Department Records

Station	Season 1937-38	Season 1938-39	Season 1939-40	Season 1940-41	Normal
San Francisco	25.48	12.53	27.17	35.05	22.02
Pilarcitos	51.58	25.56	51.66	54.57	45.99
San Andres	40.64	18.66	38.77	44.36	38.70
Crystal Springs—Upper	37.00	18.41	35.07	38.22	33.12
Crystal Springs—Lower	35.81	18.50	30.88	36.68	28.35
Crystal Springs Cottage	34.66	16.01	35.47	41.31	26.82
Lake Merced	26.91	13.22	28.05	37.78	21.57
Pleasanton	25.89	12.61	24.69	24.74	21.89
Calaveras	26.92	15.86	25.42	24.45	25.02
Sunol	25.75	14.87	23.41	23.13	21.05
Niles	22.09	13.61	21.89	26.03	20.41
Hetch Hetchy	55.60	25.59	41.47	44.03	33.48
Lake Eleanor	64.61	30.79	53.47	54.17	40.59
Moccasin	41.22	19.58	35.06	34.88	26.38

TABLE No. 2
MAXIMUM AND MINIMUM STORAGE
(Exclusive of Hetch Hetchy Sources)
MILLION GALLONS

	1938		1939		1940		1941	
	Max. Mar. 25	Min. Mar. 7, '39	Max. Apr. 12	Min. Dec. 14	Max. Apr. 9	Min. Dec. 21	Max. Apr. 6	As of June 30
Calaveras	31,569	9,493	10,650	7,784	30,479	17,935	31,569	28,401
Crystal Springs	20,170	16,941	17,215	14,111	19,347	17,116	19,650	18,435
San Andres	5,876	4,719	5,230	5,580	6,124	5,805	5,927	5,399
Pilarcitos	929	346	442	258	840	394	914	479
Lake Merced	2,233	2,343	2,398	2,207	2,588	2,541	2,733	2,597
City Reservoirs	133	151	151	257	262	198	210	244
Total	60,910	33,993	36,086	30,197	59,640	43,989	61,003	55,555

TABLE No. 3

WATER DRAWN FROM HETCH HETCHY AND AUXILIARY SOURCES

Million Gallons

	1937-38	1938-39	1939-40	1940-41
Hetch Hetchy Water Supply	1,181	7,510	14,814	7,516
Pleasanton Wells	352*	203*	221*	266*
Sunset Wells	0	0	0	0
Total	1,533	7,713	15,035	7,782

*For local consumption only.

TABLE No. 4

SEASONAL DRAFT ON SURFACE STORAGE AND AUXILIARY SOURCES

Million Gallons

1	2	3	4	5	6	7	8	9
				Seasonal Draft on Storage and Auxiliary Sources				
Year	Maximum Storage	Minimum Storage	Storage Increase During Season	Storage Decrease During Season	From Pleasanton Wells	From Sunset Wells	From E.B.M.U.D. and H.H.W.S.	Total Seasonal Draft
1918	20,388	12,382	....	8,006	3,603	....	....	11,609
1919	22,388	13,160	10,006	9,228	2,000	....	....	11,228
1920	16,578	9,986	3,418	6,592	2,871	....	....	9,463
1921	19,788	11,502	9,802	8,286	317	....	....	8,603
1922	20,091	12,770	8,589	7,321	397	....	....	7,718
1923	22,649	11,721	9,879	10,928	515	....	....	11,443
1924	11,721	4,266	0	7,455	4,726	....	....	12,181
1925	13,585	4,959	9,319	8,626	2,666	....	....	11,292
1926	17,859	9,618	12,900	8,241	2,536	....	....	10,777
1927	30,581	20,000	20,963	10,581	2,104	....	....	12,685
1928	30,687	18,657	10,687	12,030	762	....	....	12,792
1929	20,265	8,906	1,608	11,359	4,054	....	....	15,413
1930	16,475	6,441	7,569	10,034	4,073	341	....	14,448
1931	6,779	4,291	338	2,488	3,812	2,054	7,731	16,085
1932	30,916	18,650	26,625	12,266	277	2,083	158	14,784
1933	23,389	12,158	4,739	11,231	257	1,991	0	13,479
1934	16,998	7,246	4,840	9,752	2,655	1,914	1,390	15,711
1935	31,298	18,883	24,052	12,415	412	1,209	5,928	*19,964
1936	44,209	37,922	25,326	6,287	409	9	10,776	*17,481
1937	59,160	41,522	21,238	17,638	386	....	1,605	*19,629
1938	60,910	33,993	19,388	26,917	222	....	285	*27,424
1939	36,086	30,197	2,093	5,889	221	....	15,490	*21,600
1940	59,640	43,989	29,443	15,651	266	....	3,142	*19,059
1941	61,003	....	17,014	....	....	....	....	....
Average	28,893	17,092	12,167	10,402	1,719	417	2,022	14,560

NOTE: Column 9 does not include water drawn for consumption directly from run-off. It represents depletion in storage during dry season if all the water for consumption during dry season were drawn from storage.

*Include the following quantities:

1935	4,702 m.g.	Advance Release to Alameda County Water District.
1936	1,585 m.g.	" " " " " " "
1937	3,395 m.g.	" " " " " " "
1938	1,992 m.g.	" " " " " " "
1938	10,200 m.g.	Released down Alameda Creek, etc.
1939	1,022 m.g.	Advance Release to Alameda County Water District.
1940	1,598 m.g.	" " " " " " "

TABLE No. 5

CONSUMPTION IN MILLION GALLONS PER DAY

Year	San Francisco	Suburban	Total System	Max. Day	Min. Day	Max. Month	Min. Month
1930-31...	49.2	3.1	52.3	66.7	41.3	57.8	47.0
1931-32...	49.3	2.8	52.1	65.6	39.6	59.4	47.5
1932-33...	46.4	2.7	49.1	60.4	39.9	54.3	44.6
1933-34...	47.3	2.6	49.9	64.3	39.1	53.7	45.1
1934-35...	48.1	2.4	50.5	65.4	41.3	58.1	46.2
1935-36...	52.3	2.5	54.8	68.0	43.0	62.1	50.3
1936-37...	55.1	3.4	58.5	70.7	45.7	63.8	51.8
1937-38...	53.3	5.0	58.3	72.4	46.7	65.4	53.4
1938-39...	56.2	6.4	62.6	84.6	48.5	77.5	54.8
1939-40...	59.6	9.0	68.6	89.5	51.6	76.6	60.9
1940-41...	60.7	7.3	68.0	90.0	52.0	77.9	60.6

TABLE No. 5-A

AVERAGE DAILY CONSUMPTION SINCE 1865

Year	M.G.D.	Year	M.G.D.	Year	M.G.D.	Year	M.G.D.
1865.....	2.4	1885.....	17.0	1905.....	34.9	1925.....	42.6
1870.....	6.0	1890.....	20.4	1910.....	35.6	1928.....	50.1
1875.....	11.7	1895.....	19.9	1915.....	42.6	1929.....	52.1
1880.....	12.7	1900.....	25.5	1920.....	36.2	1930.....	52.1

TABLE No. 6

DELIVERY THROUGH PIPE LINES IN MILLION GALLONS DAILY

	1937-38	1938-39	1939-40	1940-41
Water Transported into San Francisco:				
San Andres 54″ Pipe.....	28.8	28.7	25.6	28.1
College Hill 30″ Supply Line.....	6.0	6.5	7.0	7.3
Baden-Merced Branch 30″ Pipe.....	0.6	3.0	7.5	4.6
Crystal Springs 44″ Pipe.....	0	0	2.5	11.0
Crystal Springs 60″ Pipe.....	17.9	18.0	17.0	9.7
Total San Francisco Consumption...	53.3	56.2	59.6	60.7
Water Transported from Crystal Springs to San Andres Reservoir:				
Crystal Springs Pump Aqueduct.....	20.4	35.6	28.6	21.4
Water Transported Across S. F. Bay:				
Bay Division 60″ and 72″ Pipes.....	31.2	62.3	51.6	43.1
Alameda 36″ Pipe.....	0.0	0.9	0.0	0.0
	31.2	63.2	51.6	43.1

TABLE No. 7

SOURCE OF WATER TRANSPORTED ACROSS SAN FRANCISCO BAY YEARLY AVERAGE MILLION GALLONS DAILY

	1937-38	1938-39	1939-40	1940-41
Pleasanton Wells	0.0	0.0	0.0	0.0
Sunol Filters and Calaveras Reservoir	31.2	43.6	13.4	31.2
Hetch Hetchy Water Supply	0.0	19.6	38.2	11.9
	31.2	63.2	51.6	43.1

TABLE No. 8

COMPARATIVE PUMPING COSTS

	1937-38	1938-39	1939-40	1940-41
SAN ANDRES PUMP				
Water Pumped, Gallons	7,458,450,000	12,996,240,000	10,451,172,000	7,799,750,000
Electric Power, KWH	6,560,000	12,006,400	9,846,400	7,171,200
Power Cost	$50,287.10	$74,680.62	$65,361.24	$50,114.64
Labor Cost	8,894.36	9,458.18	8,838.80	8,516.29
Miscellaneous	1,785.27	1,654.69	1,492.08	2,000.03
	$60,966.73	$85,793.49	$75,692.12	$60,630.96
Cost per mil. gal.	$8.17	$6.60	$7.24	$7.77
Cost per mil. gal. ft.	0.0376	0.0301	0.0329	0.0363
PULGAS PUMPS				
Water Pumped, Gallons	.....	1,766,305,000	Not Operating	Not Operating
Electric Power, KWH	.....	1,993,600		
Power Cost	$3,117.90	$17,992.42	$1,959.82	$152.18
Labor Cost	4,722.07	6,755.34	2,679.93	3,572.11
Miscellaneous	473.53	750.65	433.48	192.07
	$8,313.50	$25,498.41	$5,073.23	$3,916.36
Cost per mil. gal.		$14.44		
Cost per mil. gal. ft.		0.0627		
CENTRAL PUMPS				
Water Pumped, Gallons	2,489,930,000	2,605,931,000	2,676,500,000	2,713,252,000
Gas Burned, Cu. Ft.	53,370,000	73,098,000	108,515,000	85,647,000
Oil Burned, Gals.	141	.....	.....	23,466
Fuel Cost	$10,593.36	$11,096.62	$14,926.77	$12,114.99
Labor Cost	28,619.35	26,900.94	27,507.21	28,225.10
Miscellaneous	1,973.56	1,586.18	1,905.56	1,980.14
	$41,186.27	$39,583.74	$44,339.54	$42,320.23
Cost per mil. gal.	16.54	15.19	16.57	15.60

Note: Pulgas Pumps only operated intermittently since October, 1934.

TABLE No. 9

AVERAGE DAILY CONSUMPTION BY DISTRICTS

District	GALLONS 1940-41	1939-40	Increase or Decrease	Per Cent Increase or Decrease
Forest Hill	398,550	376,233	+22,317	+5.9
Stanford Heights	7,433,841	7,307,881	+125,960	+1.7
Lake Honda	23,817,275	24,131,658	—314,383	—1.3
College Hill	7,754,605	7,559,080	+195,525	+2.6
University Mound	20,536,896	19,528,921	+1,007,975	+5.2
Merced Manor	784,729	666,664	+118,065	+17.7
Total City	60,725,896	59,570,437	+1,155,459	+1.9
Suburban	7,288,731	9,005,970	—1,717,239	—19.1
Total Entire System	68,014,627	68,576,407	—561,780	—0.8

TABLE No. 9-A

PEAK DAY CONSUMPTION BY DISTRICTS

GALLONS

District	1940-41	1939-40	1938-39
Forest Hill	743,885	639,823	611,313
Stanford Heights	10,265,000	9,805,000	9,384,000
Lake Honda	31,857,891	30,482,030	27,677,793*
College Hill	9,411,000	9,951,000	9,035,000
University Mound	24,956,000	24,737,000	22,313,000
Merced Manor	1,999,000	1,671,000	1,750,000
San Francisco (combined)	77,077,000	74,355,000	67,045,000*
Suburban	14,502,000	15,418,000	16,349,000
System Peak	89,953,000	89,543,000	83,135,000*

*Affected by correction of Venturi meter in 54" San Andres Supply Line.

TABLE No. 10

UNIT COST FOR METER MAINTENANCE

Year	Meters In Use	Total Cost	Cost Per Meter	Labor Cost Per Meter	Material Cost Per Meter
1935-36	114,482	$65,775.43	$0.58	$0.296	$0.203
1936-37	116,606	77,231.63	0.66	0.318	0.214
1937-38	117,424	58,703.54	0.50	0.278	0.172
1938-39	120,027	50,867.27	0.42	0.237	0.119
1939-40	122,800	47,096.71	0.38	0.185	0.146
1940-41	128,422	49,192.69	0.59	0.188	0.136

TABLE No. 11

UNIT COST OF METER INSTALLATION

	1940-41	1939-40	1938-39	1937-38
Meters set	5,018	4,165	3,651	2,597
Per cent ¾" and smaller	96.1	94.8	94.3	90.8
Labor	$0.82	$0.79	$1.14	$0.98
Supervision	0.13	0.12	0.17	0.09
Meter	8.60	9.35	8.65	9.58
Material	2.06	1.70	2.01	1.54
Equipment	0.09	0.10	0.11	0.07
Paving	0.18	0.08	0.19	0.21
Miscellaneous	0.02	0.09	0.02	0.08
Total	$11.90	$12.23	$12.29	$12.55

TABLE No. 12

UNIT COST OF SERVICE CONNECTION

	1940-41	1939-40	1938-39	1937-38	1936-37
Services Installed	5,159	3,653	2,995	1,916	2,082
Per cent ¾"	98.5	97.6	97.1	94.8	93.4
Labor	$3.86	$4.74	$6.96	$6.60	$5.99
Supervision	0.58	0.68	1.06	0.79	0.43
Material	1.97	2.68	4.64	3.12	3.97
Equipment	0.84	1.16	1.38	1.15	0.93
Miscellaneous	0.01	0.33	0.85	0.52	1.68
Paving	1.80	1.60	2.33	1.67	2.00
Total	$9.06	$11.19	$17.22	$13.85	$15.00

TABLE No. 13

PIPE RECORD FOR FISCAL YEAR

July 1, 1940, to June 30, 1941

	Wrought Iron and Steel Size	Total Pipe in Ground July 1, 1940	Pipe Laid in 1940-41	Total	Taken Out or Abandoned 1940-41	Total Pipe in Ground June 30, 1941
	¾″	12,386′	0′	12,386′	49′	12,337′
	1″	41,708	0	41,708	0	41,708
	1¼″	3,928	0	3,928	0	3,928
	1½″	171,236	418	171,654	247	171,407
	2″	304,222	2,594	306,816	733	306,083
Galv.	3″	28,024	0	28,024	0	28,024
G. & B.	4″	3,979	0	3,979	0	3,979
Galv.	5″	804	0	804	0	804
Dip.	6″	3,809	0	3,809	0	3,809
Galv.	12″	6,555	0	6,555	0	6,555
	13″	456	0	456	0	456
	16″	25,587	0	25,587	0	25,587
	20″	65,728	0	65,728	0	65,728
	22″	24,377	0	24,377	0	24,377
	23½″	9,087	0	9,087	0	9,087
	24″	26,443	0	26,443	0	26,443
	30″	26,953	0	26,953	0	26,953
	33″	2,409	0	2,409	0	2,409
	36″	40,800	0	40,800	0	40,800
	37½″	8,896	0	8,896	0	8,896
	44″	14,818	0	14,818	0	14,818
	48″	11,504	0	11,504	0	11,504
	60″	9,981	0	9,981	0	9,981
Totals		843,690′	3,012′	846,702′	1,029′	845,673′

TABLE No. 13—Continued

PIPE RECORD FOR FISCAL YEAR

July 1, 1940, to June 30, 1941

Cast Iron Pipe Size	Total Pipe in Ground July 1, 1940	Pipe Laid in 1940-41	Total	Taken Out or Abandoned 1940-41	Total Pipe in Ground June 30, 1941
2″	19,452′	1,242′	20,694′	0′	20,694′
3″	62,332	0	62,332	0	62,332
4″	485,836	6,303	492,139	676	491,463
6″	1,558,231	43,490	1,601,721	447	1,601,274
8″	1,350,566	26,354	1,376,920	0	1,376,920
10″	6,873	0	6,873	0	6,873
12″	396,174	2,731	398,905	0	398,905
16″	241,282	4,688	245,970	0	245,970
20″	22,642	0	22,642	0	22,642
22″	19,058	0	19,058	0	19,058
24″	52,171	0	52,171	0	52,171
30″	6,138	0	6,138	0	6,138
Total	4,220,755′	84,808′	4,305,563′	1,123′	4,304,440′
Grand Total	5,064,445′	87,820′	5,152,265′	2,152′	5,150,113′
Total Miles	959.18	16.63	975.81	0.41	975.40

TABLE No. 13-A

VALVE RECORD

In the City Distribution Division, June 30, 1941

Gates		Service Gates		Stop Cocks		Blow-Offs		Air Valves		Check Valves	
2″	80	3″	365	⅝″	18	¾″	9	¾″	30	1½″	7
3″	240	4″	302	¾″	135	1″	44	1″	10	2″	10
4″	1,076	6″	185	1″	194	1½″	287	1½″	284	3″	1
6″	3,298	8″	112	1½″	963	2″	801	2″	215	4″	7
8″	3,023	12″	4	2″	2,690	3″	182	3″	5	6″	21
10″	6					4″	235	4″	1	8″	24
12″	746					6″	147	6″	13	12″	3
16″	374					8″	89	8″	203	16″	3
20″	23					12″	22				
22″	20					16″	2				
24″	57										
30″	21										
36″	16										
37½″	2										
42″	1										
48″	1										

TABLE No. 14

CONTRACT DATA—1940-41

Contract No.	Title of Contract	Division	Contractor	Date of Award	Date of Completion	% Complete 6/30/41	Bid Price	Contract Cost to 6/30/41
234	Install Cross-Connection on Crystal Springs and Baden-Merced Pipe Lines at Baden	Peninsula	Paris Bros.	6/17/40	10/ 8/40	100%	$18,556.50	$16,739.50
242	Lay 4″ and 8″ C. I. Mains in Miraloma Park	City Dist.	W. J. Tobin	4/22/40	9/26/40	100%	2,148.45	2,317.22
246	Lay 8″ C. I. Main in 37th Ave.	City Dist.	S. F. W. D.	6/ 3/40	7/17/40	100%	1,750.25	1,513.64
247	Lay 4″ and 6″ C. I. Mains in Santa Fe, Topeka and Quint	City Dist.	S. F. W. D.	6/17/40	8/23/40	100%	1,895.30	1,459.45
248	Lay 6″, 8″ and 16″ C. I. Mains in Merced Manor and Lakeshore Highlands Subdivisions	City Dist.	E. J. Tobin	6/10/40	8/19/40	100%	20,800.70	19,496.22
249	Lay 6″, 8″ and 12″ C. I. Mains in Lakeside Subdivision No. 3	City Dist.	E. J. Treacy	6/10/40	9/ 6/40	100%	24,115.47	23,836.85
250	Repaving Street and Sidewalk Openings for the 1940-41	City Dist.	Pacific Pavements Co., Ltd.	6/17/40	6/30/41	100%	33,580.00	26,881.61
251	Lay 6″ and 8″ C. I. Mains in Lakeside Subdivision No. 2	City Dist.	E. J. Treacy	6/24/40	10/18/40	100%	4,521.40	3,339.62
252	Lay 6″ C. I. Main in Bayshore Blvd.	City Dist.	Fred T. Fairey	6/17/40	8/ 1/40	100%	1,719.20	1,623.49
253	Lay 6″ and 8″ C. I. Mains in 40th and 41st Aves. and in Moraga St.	City Dist.	Martin Murphy	7/15/40	8/16/40	100%	1,241.40	1,174.30
254	Lay 6″ and 8″ C. I. Mains in Sunnydale Housing Project Subdivision	City Dist.	E. J. Treacy	7/15/40	.....	73%	12,189.25	7,891.14
255	Lay 6″ and 8″ C. I. Mains in 40th and 41st Aves. and Ulloa St.	City Dist.	Fred T. Fairey	7/29/40	8/26/40	100%	1,660.35	1,528.46
256	Lay 8″ and 12″ C. I. Mains in Sequoia and Bella Vista	City Dist.	E. J. Treacy	7/29/40	10/ 3/40	100%	2,242.75	2,100.57
257-A	Lay 4″, 6″ and 8″ C. I. Mains in Silver Terrace Subdivision	City Dist.	S. F. W. D.	9/16/40	3/12/41	100%	8,324.30	7,268.60
258	Lay 6″ and 8″ C. I. Mains in 30th, 36th and 37th Aves. and in Noriega St.	City Dist.	Fred T. Fairey	8/26/40	10/ 8/40	100%	2,805.60	2,362.83
259	Lay 6″ and 8″ C. I. Mains in 38th Ave. and Vicente St.	City Dist.	S. F. W. D.	9/ 3/40	10/15/40	100%	2,145.95	1,723.40
260	Lay 4″ and 6″ C. I. Mains in Sweeney and Princeton Sts.	City Dist.	S. F. W. D.	9/ 3/40	4/ 7/41	100%	1,530.25	1,312.05
261	Lay 6″ and 8″ C. I. Mains in 27th and 36th Aves. and in Lawton St. and Sloat Blvd.	City Dist.	Fred T. Fairey	9/ 3/40	10/11/40	100%	1,765.50	1,664.19
262	Lay 6″ and 8″ C. I. Mains in 23rd Ave. and Pacheco St.	City Dist.	S. F. W. D.	9/ 3/40	5/ 5/41	100%	2,109.65	1,512.09
263	Lay 6″ and 8″ C. I. Mains in 24th Ave. and Quintara St.	City Dist.	W. J. Tobin	9/ 3/40	1/22/41	100%	2,695.25	2,548.98
264	Lay 12″ C. I. Main in Laguna Honda Blvd.	City Dist.	E. J. Treacy	1/27/41	3/20/41	100%	4,681.30	4,438.58
265	Painting Interior 425 Mason St. Building	General	Deemer & Deemer	10/ 7/40	11/29/40	100%	1,540.00	1,540.00
266	Lay 8″ C. I. Main in 37th Ave., Wawona to Yorba	City Dist.	Fred T. Fairey	9/16/40	10/18/40	100%	998.80	787.02
268	Harvesting Walnut Crop at Sunol	Agricultural	Ernest W. Schween	9/23/40	10/26/40	100%	5,587.00	2,518.28

TABLE No. 14—Continued

Contract No.	Title of Contract	Division	Contractor	Date of Award	Date of Completion	% Complete 6/30/41	Bid Price	Contract Cost to 6/30/41
269	Lay 4" and 6" C. I. Mains in Ledyard, Mercury and Thornton	City Dist.	Edwin J. Tobin	9/23/40	10/29/40	100%	3,347.50	2.630.75
270	Lay 6" and 8" C. I. Mains in Stillings, Detroit and Melrose	City Dist.	W. J. Tobin	9/30/40	11/20/40	100%	2,459.65	2.122.08
271	Lay 6" C. I. Main in Connecticut St., 26th to Army	City Dist.	Fred T. Fairey	10/14/40	11/ 8/40	100%	1,098.45	1,046.99
272	Lay 6" and 8" C. I. Mains in 38th and 44th Aves. and Noriega St.	City Dist.	S. F. W. D.	11/12/40	12/ 4/40	100%	3,036.15	2,635.20
273	Lay 6" C. I. Main in Maddux Ave., Scotia to Topeka	City Dist.	Fred T. Fairey	11/12/40	12/ 5/40	100%	1,448.35	1,383.19
274	Lay 6" and 8" C. I. Mains in 38th and 44th Aves., and Ulloa and Wawona Sts., and in Potrero Housing Project	City Dist.	S. F. W. D.	12/ 9/40	1/28/41	100%	3,336.65	2,255.05
275	Lay 4", 6" and 8" C. I. Mains in Naglee, Cayuga, Arco, Havelock and Alemany	City Dist.	Fred T. Fairey	12/ 9/40	1/22/41	100%	5,350.20	4,685.64
276	Lay 6" Main in Brunswick St.	City Dist.	S. F. W. D.	1/ 6/41	2/ 8/41	100%	1,778.90	1,301.97
277	Lay 6" and 8" C. I. Mains in Miguel and Beacon Sts.	City Dist.	Walter Lenkheit	1/ 6/41	.....	None	2,286.05	.....
278	Lay 6" and 8" C. I. Mains in 43rd and 44th Aves. and Rivera St., and in Bridgeview, Apollo and Thornton	City Dist.	Edwin J. Tobin	1/13/41	4/ 7/41	100%	7,495.85	7,050.43
279	Lay 4" and 6" C. I. Mains in Desmond and Talbert Sts.	City Dist.	Fred T. Fairey	1/20/41	4/18/41	100%	1,669.40	1,547.00
280	Construct Alemany Pumping Station	City Dist.	Alfred P. Fisher	5/19/41	.....	4%	26,463.00	.....
281	Addition to Central Pumping Station	City Dist.	M. J. Lynch	3/31/41	.....	57%	16,183.00	10,756.25
282	Lay 6" and 8" C. I. Mains in Army and Ulloa and 45th and 46th Aves.	City Dist.	W. J. Tobin	2/10/41	.....	23%	4,805.70	1,093.57
283	Lay 6" and 8" C. I. Mains in Hahn St.	City Dist.	W. J. Tobin	2/10/41	3/18/41	100%	2,538.05	2,376.40
284	Lay 6" and 8" C. I. Mains in 32nd, 33rd and 34th Aves. and Ortega St.	City Dist.	E. J. Treacy	3/10/41	3/22/41	100%	8,635.30	7,413.63
285	Lay 44" Cross-Town Pipe Line	City Dist.	All Bids Rejected	.....	.....	...	.....	.....
286	Lay 6" C. I. Mains in Bernal Ave. and Bosworth St.	City Dist.	W. J. Tobin	3/24/41	5/16/41	100%	2,844.10	2,270.53
287	Lay 6" C. I. Mains in Point Lobos and Melrose	City Dist.	Fred T. Fairey	3/31/41	5/ 9/41	100%	3,934.45	3,561.88
288	Lay 6" C. I. Main in 38th Ave., Taraval to Ulloa.	City Dist.	Fred T. Fairey	4/ 7/41	5/15/41	100%	1,180.55	1,046.78
289	Lay 6", 8" and 16" C. I. Mains in Lakeshore Park Subdivision No. 2	City Dist.	E. J. Treacy	4/ 7/41	6/13/41	100%	17,166.35	16,716.93
290	Lay 6" C. I. Main in 39th Ave., Moraga to Noriega	City Dist.	S. F. W. D.	4/21/41	5/15/41	100%	1,291.70	916.39
291	Lay 4" and 6" C. I. Mains in Quint, Revere, Roblee, Thomas and Stillings	City Dist.	Edwin J. Tobin	4/28/41	6/13/41	100%	4,890.40	4.359.13
292	Lay 6" C. I. Main in 40th Ave., Ulloa to Vicente	City Dist.	S. F. W. D.	5/19/41	6/18/41	100%	1,395.80	948.69
293	Lay 8" C. I. Main in 3rd St., Mariposa to 23rd	City Dist.	E. J. Treacy	5/26/41	.....	17%	17,064.00	.....
294	Lay 8" C. I. Main in Ortega St., 46th to 48th Ave.	City Dist.	S. F. W. D.	5/26/41	6/28/41	100%	1,447.75	.....
295	Lay 6" C. I. Main in Evelyn Way and Del Vale Ave.	City Dist.	S. F. W. D.	5/26/41	.....	None	3,685.00	.....
296	Sunol Irrigation and Water Supply Systems	Alameda	All Bids Rejected	.....	.....	...	.....	.....
297	Lay 6" and 8" C. I. Mains in 24th and Thomas	City Dist.	S. F. W. D.	6/23/41	.....	None	4,931.95	.....
299	Repaving Street and Sidewalk Openings for the year 1941-42	City Dist.	Pacific Pavements Co., Ltd.	6/30/41	.....	None	46,225.00	.....

TABLE No. 15

Gross Metered Service Revenues, Service Charges and Special Service Revenues, Also Record of Refunds, Allowances, Adjustments, Collections and Balances Due. Comparisons—Fiscal Years 1937-38 to 1940-41

	1937-38	1938-39	1939-40	1940-41
Metered Service—Standard Rates				
Residential	$2,885,138	$3,007,368	$3,129,055	$3,149,403
Commercial (Incl. Contrs.)	2,618,099	2,604,152	2,655,038	2,625,747
Industrial	406,740	367,876	389,189	390,541
Municipal	276,771	317,824	339,487	362,070
Docks	56,668	47,367	43,792	50,728
Suburban	344,225	415,250	449,177	476,981
Total	$6,587,641	$6,759,837	$7,005,738	$7,055,470*
For Water Delivered	$5,427,016	$5,575,836	$5,791,456	$5,807,330*
Ratio	82.4%	82.5%	82.7%	82.3%
Service Charges	1,160,625	1,184,001	1,214,282	1,248,140*
Ratio	17.6%	17.5%	17.3%	17.7%
Special Service				
Fire Hydrants (S. F.)	$223,972	$226,480	$229,263	$233,020
Street Work and Sewers	291	339	253	366
Contractors—Flat Rates	1,825	1,785	2,791	1,350
Shipping—Hose Truck	32,087	32,988	27,266	28,156
Suburban—Special Contracts	31,496	21,559	20,753	20,530
Total	$289,671	$283,151	$280,326	$283,422
Total Gross Charges	$6,877,312	$7,042,988†	$7,286,064	$7,338,892*
Deductions				
Cash Refunds	$1,117	$1,746	$996	$1,085
Allowances and Adjustments	18,217	17,702	16,209	22,009
Profit and Loss	3,418	4,476	3,673	4,446
Total	$22,752	$23,924	$20,878	$27,540
Net Sales	$6,854,560	$7,019,064†	$7,265,186	$7,311,352*
Collections	6,436,241	6,484,877	6,702,967	6,794,002
Balances Due on Cons. Accts.	455,798	517,016	581,558	525,379
Golden Gate Intl. Exposition	$5,233	$29,800	$40,610	$26,808

†Affected by rate reduction of January 1, 1938.
*Golden Gate International Exposition not included—shown separately.

TABLE No. 15-A

CHARGES OF NON-PAYING MUNICIPAL ACCOUNTS

For the Fiscal Years 1939-1940 and 1940-1941

	1939-1940	1940-1941	Increase	Decrease
Hydrants	$229,262.70	$233,019.70	$3,757.00	.....
Parks	106,538.75	92,947.19	.....	$13,591.56
Golden Gate Park Proper	29,623.12	52,157.91	22,534.79	.....
Municipal Railway	1,882.86	1,775.12	.....	107.74
Municipal Railway Track Repair Work	1.43	3.19	1.76	.....
Department of Public Works (Street Cleaning)	9,352.90	10,459.60	1,106.70	.....
Troughs	188.83	119.02	.....	69.81
Auxiliary Fire System	14,093.90	14,820.40	726.50	.....
Department of Public Works (Public Buildings)	35,490.60	34,284.88	.....	1,205.72
Department of Public Works (Street Work and Sewers)	252.69	366.10	113.41	.....
Fire Department	6,947.84	7,157.94	210.10	.....
Department of Public Health	29,927.89	28,432.44	.....	1,495.45
Department of Public Health	1,011.43	1,184.81	173.38	.....
Relief Home	14,804.80	14,098.80	.....	706.00
Exposition Auditorium	1,133.42	1,355.90	222.48	.....
Opera House and War Memorial Building	1,505.16	1,528.20	23.04	.....
Opera House and War Memorial Building	655.23	639.94	.....	15.29
Opera House and War Memorial Building (Sprinkler)	36.00	36.00	.....	.....
Purchaser of Supplies—City and County of San Francisco	19.31	48.40	29.09	.....
Dept. of Electricity — General Alarm Station	177.56	226.95	49.39	.....
Museums—				
Memorial Museum — Station M, Golden Gate Park—Fulton and 10th Avenue	63.49	164.18	100.69	.....
Curator—Palace of Legion of Honor—Lincoln Park—Clement and 39th Avenue	315.14	361.00	45.86	.....
Municipal Airport	1,536.97	4,489.98	2,953.01	.....
Fire Boats	371.34	360.23	.....	11.11
Hassler Health Farm	2,482.47	3,475.48	993.01	.....
W. P. A. Projects	9,808.15	6,012.85	.....	3,795.30
Public Welfare Dept.	547.94	618.75	70.81	.....
Improvement Associations (56 accounts)	2,461.77	4,452.57	1,990.80	.....
Libraries	.....	1,783.83†	1,783.83	.....
Playgrounds	24,748.82*	28,140.62	3,391.80	.....
Totals	$525,242.51	$544,521.98	$40,277.45	$20,997.98

$19,279.47 Net Increase

*Non-Paying as of June, 1939.
†Non-Paying as of July, 1940.

TABLE No. 15-B

CHARGES OF PAYING MUNICIPAL ACCOUNTS

For the Fiscal Years 1939-1940 and 1940-1941

	1939-1940	1940-1941	Increase	Decrease
Libraries	$2,017.65	.....*	.....	$2,017.65
Schools	41,742.29	$46,767.69	$5,025.40	.....
Sharp Park	.....	3,540.12†	3,540.12	.....
Totals	$43,759.94	$50,307.81	$8,565.52	$2,017.65

$6,547.87 Net Increase

*Libraries Non-Paying as of July, 1940.
†New Account.

TABLE No. 16

METERS INSTALLED—SAN FRANCISCO DISTRICT

Revenue and Non-Revenue Producing as of June 30, 1941

Class of Consumers	⅝"	¾"	1"	1½"	2"	3"	4"	6"	8"	12"	Total
Revenue Producing:											
Commercial	20,685	952	1,702	1,862	2,397	12	23	156	119	1	27,909
Residential	95,999	132	634	229	9						97,003
Dock and Shipping	148	7	26	17	76	10				2	286
Total	116,832	1,091	2,362	2,108	2,482	22	23	156	119	3	125,198
Non-Revenue Producing:											
Commercial	1,466	21	30	21	52		1	2			1,593
Residential	1,624	1									1,625
Dock and Shipping					6						6
Total	3,090	22	30	21	58		1	2			3,224
Check Totals	119,922	1,113	2,392	2,129	2,540	22	24	158	119	3	128,422

NOTE: The above meter account includes 624 batteries composed of 1,743 meters.

The above meter account also includes 46 consolidations composed of 124 meters.

The above meter account also includes 288 automatic sprinklers for fire purposes.

Total number of active accounts as of June 30, 1941—124,041.

Previous Records

	1936-37	1937-38	1938-39	1939-40	1940-41
Total Meters	116,606	117,424	120,027	123,921	128,422
Increase	2,124	818	2,603	3,894	4,501
Idle Meters	3,246	2,301	2,362	2,581	3,224

TABLE No. 16-A

METERS INSTALLED—SUBURBAN DISTRICT

Revenue and Non-Revenue Producing as of June 30, 1941

Revenue Producing:											
Class of Consumers	⅝″	¾″	1″	1½″	2″	3″	4″	6″	8″	10″	Total
Under Regular Rates	427	19	27	22	180	.	9	9	.	2	695
Under Special Contracts	3	1	..	3	23	.	1	..	.	.	31
Total	430	20	27	25	203	.	10	9	.	2	726
Non-Producing:											
Under Regular Rates	21	..	6	3	...	.	1	1	1	.	33
Under Special Contracts	4	..	3	..	6	.	..	..	.	.	13
Total	25	..	9	3	6	.	1	1	1	.	46
Totals	455	20	36	28	209	.	11	10	1	2	772

NOTE: The above account includes 169 meters in excess of accounts.
The total number of active Suburban accounts as of June 30, 1941, was 557.

Comparisons:	⅝″	¾″	1″	1½″	2″	3″	4″	6″	8″	10″	Total
Record June 30, 1937											
Revenue Producing	389	24	35	32	165	3	4	2	.	.	654
Non-Producing	37	6	5	3	24	.	2	..	1	.	78
Total	426	30	40	35	189	3	6	2	1	.	732
Record June 30, 1938											
Revenue Producing	403	19	35	26	192	3	6	2	.	.	686
Non-Producing	37	5	2	4	15	.	2	..	1	.	66
Total	440	24	37	30	207	3	8	2	1	.	752
Record June 30, 1939											
Revenue Producing	428	20	32	22	196	.	11	9	.	2	720
Non-Producing	24	2	6	6	23	.	1	..	1	.	63
Total	452	22	38	28	219	.	12	9	1	2	783
Record June 30, 1940											
Revenue Producing	442	18	32	22	185	.	10	9	.	2	720
Non-Producing	24	1	3	4	19	.	2	1	1	.	55
Total	466	19	35	26	204	.	12	10	1	2	775

TABLE No. 17

STREET MAIN TAPS AND SERVICE CONNECTIONS RECORD

San Francisco District—June 30, 1941

TAPS ON STREET MAINS

	Wharf	¾″	1″	1½″	2″	3″	4″	6″	8″	12″	Totals
June 30, 1940.....	244	135,300	3,291	2,856	2,055	608	269	229	112	3	144,967
Add 1940-41.....	...	4,727	50	34	15	6	9	5	10	1	4,857
June 30, 1941.....	244	140,027	3,341	2,890	2,070	614	278	234	122	4	149,824

SERVICE CONNECTIONS

Services connected to street mains, as above.....				149,824
ADD—"Distributors," being one or more add'l meters con. to serv. pipes				10,417
Total connections of record.....				160,241
DEDUCT—Disconnected services.....				32,978
NET live services, all metered, 125,198—active; tempy. S/O 3,224, less 1,159 extra meters in batteries.....				127,263
Previous Records	1937-38	1938-39	1939-40	
Active	115,123	117,665	121,340	
Shut-Off	2,301	2,362	2,581	
Totals	117,424	120,027	123,921	
Less extra battery meters.....	977	1,033	1,121	
Net	116,447	118,994	122,800	

SERVICE INSTALLATIONS

Fiscal Year 1940-41

District	Taps	Distributors	Total
Richmond District.....	191	33	224
Sunset District	2,566	52	2,618
North Market and Western Addition.....	132	52	184
South Market and Twin Peaks.....	1,968	106	2,074
Totals	4,857	243	5,100
Previous Years			
1937-38	2,086	194	2,280
1938-39	3,189	206	3,395
1939-40	4,080	232	4,312

AUTOMATIC SPRINKLER INSTALLATIONS

October 26, 1932, to June 30, 1941

Size	1932-37	1937-38	1938-39	1939-40	1940-41	Total	Installed Prior to 10/26/32	Grand Total
4-inch....	1	2	0	0	0*	3	...	...
6-inch....	35	8	6	5	3	57	...	...
8-inch....	36	11	6	1	9	63	...	...
12-inch....	2	0	0	0	0	2	...	...
Totals...	74	21	12	6	12	125	163	288

*One 4″ removed July, 1940 (increased to 6″)—one 4″ installed June, 1941.

TABLE No. 18

OFFICIAL METER TESTS

During Fiscal Year Ended June 30, 1941

PERCENTAGE OF VARIATION

	0%	1%	2%	3%	4%	5%	6%	8%	10%	15%	Number Tested Total	Ratio
Fast	..	6	9	4	1	..	..	..	..	..	20	34.0%
Slow	..	18	1	2	2	..	..	..	..	..	23	39.0%
O. K.	16	..	..	..	..	..	..	..	..	..	16	27.0%
Total	16	24	10	6	3	..	..	..	..	..	59	100.0%
Previous Totals:												
Year 1937	45	85	28	12	3	..	..	..	..	..	173	
Year 1938	31	44	18	6	3	2	..	..	1	..	105	
Year 1939	38	53	12	10	1	..	..	..	..	..	114	
Year 1940	52	32	18	6	1	1	..	..	..	..	110	

Refunds account of over-registration —$7.22 (1941)
Increased account of under-registration— 3.33 (1941)

TABLE No. 19

RECORD OF BAD WATER COMPLAINTS

Comparisons of Complaints Received During the Fiscal Years 1937-38 to 1940-41, with Reference to the Districts Involved

	1937-38	1938-39	1939-40	1940-41
University Mound	240	116	152	77
College Hill	58	97	112	36
Lake Honda Reservoir	55	87	320	111
Lake Honda Ocean View	66	76	85	51
Lake Honda Lombard	27	47	21	27
Forest Hill	2	6	12	4
Stanford Heights	89	45	89	44
Presidio Heights	54	23	50	17
Merced Manor	0	0	1	0
Totals	591	497	842	367

TABLE No. 20

RECORD OF NO WATER COMPLAINTS

Fiscal Years 1937-38 to 1940-41

	1937-38	1938-39	1939-40	1940-41
(a) Those for which the Department was responsible:				
Choked Pipes	115	71	62	89
Service or Main Broken	36	37	28	22
Service or Main Too Small	100	77	87	87
Elevation Too High	13	28	60	78
S/O at Main or Meter	57	36	48	47
District Tempy S/D	14	5	8	3
Totals	335	254	293	326
Percentage	42.7%	33.3%	35.4%	40.6%
(b) Those for which the Consumers were responsible:				
House Valve Closed	116	115	143	121
House Pipe Too Small	54	116	121	100
False Reports	166	176	193	125
Valves Out of Order	83	68	56	94
House Pipe Broken	14	18	10	13
Building Too High	0	2	1	0
Overloaded Service	17	13	11	24
Totals	450	508	535	477
Percentage	57.3%	66.7%	64.6%	59.4%
Total "No Water"	785	762	828	803

TABLE No. 21

RECORD OF BUILDING PERMITS

Issued by the Department of Public Works During the Fiscal Years 1937-38 to 1940-41

	1937-38	1938-39	1939-40	1940-41
Class "A"	$40,000	$257,500	$214,700	$5,130,000*
Class "B"	649,600	741,900	445,700	1,300,062
Class "C"	1,247,450	1,405,136	4,399,108	2,550,443
Frames	8,087,721	11,954,395	14,339,254	17,532,858
Alterations	3,667,943	3,750,524	3,332,409	3,459,953
Public Buildings	1,289,639	3,563,446	2,221,187	181,286
U. S. Government	.....	3,099,367	487,562	2,503,245
State Buildings	287,115	79,857	.....	960,583
Golden Gate Intl. Exposition	1,644,575	2,490,041	.....	.....
Bay Bridge	2,283,377	.....	.....	.....
Totals	$19,197,420	$27,342,166	$25,439,920	$33,618,430

*Includes $4,000,000 U. S. Appraiser's Building.

TABLE No. 22

NUMBER OF BUILDING PERMITS

Issued by the Department of Public Works During the Fiscal Years 1937-38 to 1940-41

	1937-38	1938-39	1939-40	1940-41
Class "A"	1	4	4	4
Class "B"	12	14	8	7
Class "C"	89	99	94	107
Frames	1,760	2,730	3,518	4,405
Alterations	5,391	5,735	4,968	4,270
Public Buildings	15	24	14	4
U. S. Government	...	8	3	10
State Buildings	4	2	0	3
Golden Gate International Exposition	19	46	0	0
Bay Bridge	1	0	0	0
Totals	7,292	8,662	8,609	8,810

TABLE No. 23

NUMBER OF CONTRACTORS' JOBS HANDLED BY THE BUILDERS' AND CONTRACTORS' SUPPLY SECTION

Totals during the Fiscal Years 1937-38	2,476
1938-39	3,286
1939-40	3,899
1940-41	4,385

TABLE No. 24

AGRICULTURAL DIVISION—RECEIPTS AND EXPENSES

RECEIPTS	1936-37	1937-38	1938-39	1939-40	1940-41
Rentals—Cash	$39,760.69	$44,138.19	$45,064.32	$45,069.32	$48,869.30
Rentals—Share Crop	9,426.48	6,080.96	4,711.78	3,005.68	10,128.43
Taxes—Paid by Tenants	1,817.15	2,514.22	1,089.26	1,061.29	1,146.50
Sale of Walnuts	27,385.40	24,534.52	33,909.74	13,730.46	17,240.16
Total Gross Income	$78,389.72	$77,267.89	$84,775.10	$62,866.75	$77,384.39
EXPENSES					
General:					
Salaries	$9,849.96	$10,975.77	$5,946.27	$5,524.43	$5,868.58
Miscellaneous Office Supplies and Expenses	172.14	448.86	767.03	622.42	549.22
Automotive Service and Depreciation	1,007.00	1,117.07	725.11	692.77	486.63
Share Crops:					
Storage, Insurance, Handling, Freight	735.75	234.64	102.24	111.93	36.49
Care of Properties:					
Repairs—Buildings, Structures and Grounds	3,461.05	3,260.91	5,532.61	2,620.39	2,507.87
Walnut Orchard:					
Care of Orchard	5,443.37	5,674.78	3,399.88	8,105.07	9,627.25
Crop Harvest	5,676.18	5,469.13	9,051.16	5,068.67	3,473.77
Packing House and Selling Expense	4,332.49	3,459.61	5,010.89	1,850.59	2,409.24
Total Operating Expenses	$30,677.94	$30,640.77	$30,535.19	$24,596.27	$24,959.05
Net Income	$47,711.78	$46,627.12	$54,239.91	$38,270.48	$52,425.34

ORGANIZATION AND PERSONNEL

N. A. Eckart.....General Manager and Chief Engineer

WATER PRODUCTION AND ENGINEERING

T. W. Espy.....Engineer of Water Production
I. E. Flaa.....Hydraulic Engineer
C. A. Lauenstein.....Assistant Hydraulic Engineer
L. A. McAtee.....Construction Engineer
W. A. Yount.....Superintendent Alameda Division
W. R. Anderson.....Assistant Superintendent Alameda Division
G. J. Davis.....Superintendent Peninsula Division
S. M. Millard.....Assistant Superintendent Peninsula Division
G. E. Fanning.....Photographer

CITY DISTRIBUTION

G. W. Pracy.....Superintendent City Distribution
O. G. Goldman.....Assistant Superintendent City Distribution
J. J. Miley.....General Foreman City Pipe System
John E. O'Marie.....General Foreman Services and Meters
Thomas Mayhew.....Senior Storekeeper
R. W. Tullis.....Foreman Machine Shop

WATER PURIFICATION

G. E. Arnold.....Chief Water Purification Engineer
H. L. Fruitman.....Water Purification Engineer
E. W. Barbee.....Water Purification Engineer
H. C. Medberry.....Water Purification Engineer

WATER SALES

V. E. Perry.....Manager Water Sales Division
A. M. Cooley.....Assistant Manager Water Sales Division
W. D. Ryder.....Supervisor Consumers' Accounts
J. E. Huntoon.....Assistant Supervisor Consumers' Accounts
A. W. Till.....Supervisor of Collections
F. S. Hobro.....Assistant Supervisor of Collections
R. P. Scott.....Chief Clerk
J. C. Joost.....Supervisor Docks and Shipping
C. C. Young.....Chief Meter Inspector
Joseph Conway.....Consumers' Complaint Investigator

LANDS AND AGRICULTURE

A. S. Chesebrough.....Superintendent Agricultural Division
F. Peters.....Assistant Superintendent Agricultural Division

ACCOUNTS

E. J. White.....Assistant Auditor
H. J. Pachtner.....Senior Bookkeeper
H. M. Kinsey.....Cashier

RETIRED—1940-1941

During the past fiscal year the following employees were retired from service, and recognition is given on account of their faithful service in the organization:

Herman W. Albrecht—Reservoir Keeper.....43½ Years' Service
Thomas J. Stapleton—Serviceman.....42 Years' Service
John A. Lacy—Meter Inspector.....41 Years' Service
Burton J. Adams—Pump Operator.....40½ Years' Service
Louisa V. Allen—General Clerk-Typist.....25 1/3 Years' Service

SPRING SPILL

HETCH HETCHY WATER SUPPLY, POWER AND UTILITIES ENGINEERING BUREAU

L. T. McAFEE

Manager and Chief Engineer

L. T. McAFEE
Chief Engineer and Manager Hetch Hetchy Water Supply

Satisfactory operation and maintenance of existing facilities and the construction of new facilities and other improvements continued in all branches of the Hetch Hetchy Water Supply, Power and Utilities Engineering Bureau for the fiscal year 1940-1941. Water was delivered from Hetch Hetchy Water Supply sources in the high Sierra Nevada to San Francisco and vicinity at an average rate of about 21.000,000 gallons daily. Hetch Hetchy Power was generated and transmitted without serious interruption throughout the year, and many minor additions and betterments were made to facilities of the water and power utilities. Substantial improvements were made to the Municipal Railway, requiring the service of the engineering bureau in the preparation of plans and specifications and supervision of construction. The program for enlargement and improvement of the San Francisco Airport continued through the year. Construction of airport features for land planes on Treasure Island was started, and good progress was being made on this job at the close of the fiscal year.

Detailed reports on the activities of the various departments of the bureau follow under separate headings.

Organization and Personnel:

The bureau is in charge of L. T. McAfee, Manager and Chief Engineer. The principal members of the bureau staff are:

Headquarters engineering and administration, San Francisco office:

L. W. Stocker, Senior Civil Engineer
L. M. Perrin, Electrical Engineer
L. V. Degnan, Office Engineer
M. J. Bartell, Assistant Hydraulic Engineer
W. W. Helbush, Mechanical Engineer
J. H. Turner, Civil Engineering Designer
G. S. Warren, Senior Accountant

Power production, and field operation and maintenance of the water production system, with headquarters at Moccasin:

Thornton Easler, Electrical Engineer
Douglas Mirk, Chief Operator
E. E. Rawles, Assistant Engineer

Feld engineering, and supervision of construction:

J. H. Ryan, Construction Engineer, Headquarters at Hetch Hetchy
A. J. Wehner, Construction Engineer, San Francisco Airport
J. H. Harwood, Construction Engineer, Municipal Railway

Other engineers, draftsmen, surveyors, accountants, clerks, stenographers, mechanics, laborers, etc., are employed, many of them permanently, others temporarily as needed for the work in hand.

Publicity and Visitors:

This bureau has collaborated with the Bureau of Public Relations in the dissemination of information on the Hetch Hetchy water supply and power system and related work, and on its activities in connection with the improvement of the Municipal Railway and the airports.

Assistance has also been given by members of the bureau to outside engineers, public bodies, and visiting officials from other cities, states, and countries on trips made over the utilities' properties.

HETCH HETCHY WATER SUPPLY

During the fiscal year 1940-41, the Hetch Hetchy Water Supply properties were operated without interruption. Storage of water in reservoirs was ample for all water supply and power requirements, and delivery of Hetch Hetchy water to San Francisco's local system, although less than the last previous fiscal year, was substantial. Maintenance work to keep the properties in good condition was done and many small contracts and other items of work for improvements and additions to the properties were performed.

The quantity of Hetch Hetchy water brought to the City's local system for the fiscal year was 7,525,800,000 gallons, making a total of 67,628,700,000 gallons since the properties were placed in operation on October 28, 1934. The delivery of Hetch Hetchy water to the local supply was only about half that of the fiscal year 1939-1940; this was largely due to exceptionally high rainfall during the winter of 1940-1941, giving an unusually heavy direct runoff of water from the adjacent watersheds into the local reservoirs.

On the Lower Cherry Aqueduct, a section of the roadway along the canal bank and a flume section were reconstructed under contract. A new water supply system at Mather Recreation Camp was constructed for the Recreation Commission, also under contract. Plans and specifications were prepared for contract construction of other improvements.

Hydrography:

Rainfall and stream flow for the season 1940-1941 were considerably above normal. The Tuolumne River run-off at La Grange from July 1, 1940, to June 30,

1941, was 2,286,000 acre-feet; it was 2,182,000 acre-feet for the previous fiscal year. Hetch Hetchy Reservoir started spilling May 23, 1941.

The City continued its collaboration in the snow survey work done under the direction of the State Department of Public Works, Division of Water Resources, on a cooperative basis, by governmental and private agencies interested in conservation of water and in flood control. The State issues four bulletins each year giving the results of the snow survey work done in each of the months of January to April, inclusive, and in the last two bulletins of the series presents forecasts of the run-off for the period April to July, inclusive. As the snow survey work improves, these forecasts become increasingly accurate and useful. It is of great value, especially in years of deficient rainfall, to know, well in advance, approximately the quantity of run-off to be expected in the Tuolumne basin, so that the best possible arrangements can be made for conserving the water, both for San Francisco's power development and domestic water supply and for use by the irrigation districts on their land.

The snow survey work may at some future time perform another highly important function. If a plan for flood control on the Tuolumne River is put into operation, accurate forecasts of run-off in years of high precipitation will be necessary so that stream flow may be most satisfactorily regulated for the purpose of flood control in coordination with domestic water supply, irrigation, and power generation.

Below are given the amounts of run-off from the Tuolumne River watershed as predicted for 1940 from snow survey data, the amounts subsequently actually measured, and the predictions for 1941:

Point of Measurement	1940 April to July, Incl. Acre-Feet Run-Off Predicted	1940 April to July, Incl. Acre-Feet Run-Off Measured	1941 April to July, Incl. Acre-Feet Run-Off Predicted
Hetch Hetchy	685,000	672,000	900,000
La Grange	1,150,000	1,292,000	1,900,000

The precipitation for the season 1940-1941, and the natural flow of Tuolumne River for the fiscal year 1940-1941, measured at several stations named below, were as follows:

PRECIPITATION IN INCHES

Month	Hetch Hetchy 1940-41 Season	Hetch Hetchy 1910-41 Average	Lake Eleanor 1940-41 Season	Lake Eleanor 1909-41 Average	Moccasin 1940-41 Season	Moccasin 1925-41 Average
July	0.00	0.20	0.00	0.11	0.00	0.01
August	0.02	0.11	0.02	0.13	0.00	0.01
September	0.09	0.74	0.02	0.77	0.00	0.21
October	2.86	2.04	2.23	2.01	2.48	1.49
November	1.10	2.53	1.42	2.98	0.83	2.00
December	14.97	4.74	17.69	5.96	9.35	4.03
January	5.84	6.34	8.18	8.04	3.59	5.04
February	7.53	6.33	13.19	8.05	6.88	5.98
March	4.26	5.02	4.46	5.57	4.29	4.15
April	5.51	3.23	6.36	3.42	4.98	2.43
May	1.62	1.78	1.40	1.70	0.19	0.62
June	0.21	0.79	0.19	0.72	0.00	0.26
Total	44.01	33.85	55.16	39.46	32.59	26.23

R. B. HANSEN

NATURAL FLOW OF TUOLUMNE RIVER, IN ACRE-FEET
FISCAL YEAR 1940-1941

Month	Hetch Hetchy	Lake Eleanor	Cherry Creek	La Grange
July	34,665	2,327	5,345	53,957
August	6,470	0	468	10,755
September	2,791	0	236	2,015
October	3,221	0	805	11,306
November	4,328	895	2,251	15,005
December	28,562	14,626	13,436	129,055
January	23,873	9,586	10,223	115,450
February	31,813	15,106	15,388	215,782
March	43,041	19,317	22,213	252,523
April	61,743	24,756	31,216	280,162
May	300,319	70,177	121,864	663,667
June	329,966	34,713	99,747	536,222
Total	870,792	191,503	323,192	2,285,908

The amount of water diverted from the Tuolumne River watershed to the San Francisco vicinity during the fiscal year is shown in the following table:

1940	Million Gallons	1941	Million Gallons
July	174.0	January	1,085.9
August	659.2	February	860.8
September	1,052.5	March	958.8
October	715.9	April	921.8
November	150.8	May	878.4
December	67.7	June	0.0

Total, fiscal year 1940-1941	7,525.8
Diverted prior to July, 1940	60,102.9
Total diversion to San Francisco vicinity since beginning of operation of Hetch Hetchy Aqueduct	67,628.7

At the end of the fiscal year the total amount of water stored in Calaveras reservoir, the Peninsula reservoirs and the City reservoirs of the Water Department was 55.6 billion gallons; in Hetch Hetchy and Lake Eleanor reservoirs, 122.4 billion gallons.

The City's defense against suits filed by various riparian owners has necessitated systematic measurement and compilation of records of stream flow at several stations on the San Joaquin, Tuolumne, and Stanislaus Rivers, in the lower San Joaquin Valley. Salinity tests of the San Joaquin River water are also made. The ground water elevation is observed at intervals of about a month in a series of 100 wells located in the vicinity of the stream channels. A record is kept of the amounts of water pumped from the rivers and used for irrigation by the various districts and individuals.

During the construction of the aqueduct tunnels, many springs and wells adjacent to the tunnels suffered diminution of flow and some even ceased to flow. Most of the property owners affected took the attitude that as the decrease or disappearance of flow occurred during the tunnel construction, it was because of

the tunnel construction. Numerous claims for damages were made against the City, and some suits were brought. Anticipating such claims, the department many years ago adopted the practice of locating, by survey, all springs and wells that could be found in a zone through which a tunnel was to be driven, and measuring the flow or yield of each several times annually. The information thus accumulated has enabled the engineers to compare the conditions existing before, during, and after tunnel construction, and to study the relation of flow to rainfall and other weather conditions. From such studies, and from geological investigation, a determination of the merit of each damage claim is made. In some cases the City has accepted responsibility, but in most cases where diminution or disappearance of flow has actually occurred it is believed to be the result of natural conditions. Many of the claims were presented during the "dry cycle" when rainfall was below normal for several years. Recent winters of normal rainfall have brought many of these springs back to a flow as good as, and sometimes better than, when first observed. Pending adjudication, all records of flow are being kept up to date by continuance of the observations above mentioned.

Water Litigation:

As stated in the report of last year, the City is defendant in a number of lawsuits involving water rights. In the most advanced case, that of Dan E. William et al. vs. City and County of San Francisco, the oral arguments were heard March 4, 1940. On May 23, 1940, Judge Garibaldi filed his opinion, in which he said:

"Two main problems are presented to the Court in this action.

"1. Are the plaintiffs riparian owners of the land described in the complaint?

"2. Have the plaintiffs shown any reasonable beneficial use to which they could put the water?

"As to the first question—it is the opinion of the Court that the fact that the titles of plaintiffs were annexed subsequent to the passage of the Desert Land Act of 1877 does not deprive them of their riparian rights. For this reason and by virtue of the further evidence introduced in this case, the Court finds the plaintiffs, and each of them, are riparian owners and entitled to riparian rights in the flow of the stream involved and to have their rights declared as such.

"As to the second question—after a careful review of the evidence, the Court has arrived at the conclusion that none of the proposed power projects suggested by the plaintiffs are feasible, practicable, or profitable. It is, therefore, the further opinion of the Court that said plaintiffs, and each of them, have failed, at the present time, to show that they can put the water to a beneficial use."

The judgment was finally entered in the case on May 16, 1941. The City has appealed from that part of the judgment decreeing that plaintiffs have riparian rights superior to the appropriative rights of the City. The principal ground for the appeal is the decision of the United States Supreme Court in California-Oregon Power Co. vs. Beaver Portland Cement Co., 295 U. S. 142, holding that no federal land entered after March 3, 1877 (the date of the Desert Land Act), possesses riparian rights. Every one of the parcels owned by plaintiffs and involved in the Williams case was entered long after March 3, 1877.

Relations with Turlock, Modesto and Waterford Irrigation Districts:

On November 26, 1934, the directors of the Turlock Irrigation District and of the Modesto Irrigation District met with the members of the Public Utilities

Commission of the City and County of San Francisco, and agreed to appoint representatives to attempt to effect a settlement out of court of the case filed by the Districts against the City. Extensive hydrographic studies made by the representatives appointed pursuant to the agreement satisfied them that there is sufficient water available from the Tuolumne River watershed, when properly conserved, to meet both the ultimate irrigation requirements of the Districts and the City's estimated ultimate demand of 400,000,000 gallons daily for domestic purposes. These studies also showed that full cooperation during past years by the Districts and the City has resulted in the operation of storage releases from reservoirs so as best to meet the requirements of both the Districts and the City. As a result of these studies, the Districts and the City, early in 1940, agreed properly to conserve the waters of the Tuolumne River, to continue to operate as in the past, with the same degree of cooperation, and to recognize the provisions of the Raker Act as applying to the Districts and the City, without waiving any of their rights. The Districts and the City also executed appropriate stipulations to postpone the trial of pending litigation for a period of 15 years.

Relations with United States Department of the Interior:

Pursuant to a requirement of the Raker Act, the annual payment of $30,000 was made to the United States, bringing the total of such payments on this account to $440,000 as of July 1, 1941.

The employees of the bureau have frequently conferred with the Superintendent and other officials of Yosemite National Park, on matters affecting the mutual interests of the City and the Park Service. Relations have been cordial, both parties cooperating to work out satisfactory solutions of the problems presented.

Relations with the Department of the Interior in reference to the disposal of power under the Raker Act are described in the Hetch Hetchy Power Operation section of this report.

Flood Control Studies on the Tuolumne River:

As mentioned in the report of last year, the United States Engineer Office in Sacramento made studies and prepared a report on flood control on the San Joaquin River and its tributaries, including the Tuolumne River watershed.

To date, the federal government has made no announcement regarding the construction of the flood control works recommended in the report.

Cherry River Development:

The interest shown, as above mentioned, by the United States Engineer Office in flood control, on the Tuolumne River watershed, together with other conditions pertaining to storage, use of water, and the generation of power, have made it advisable for the City to start planning for the development of the Cherry River watershed as a source of water and power. Accordingly, an appropriation of $25,000, to be used during the fiscal year 1940-1941, was made to cover the cost of preparation of preliminary plans for that development.

A survey party was engaged during the summers of 1940 and 1941 in making the detail surveys necessary for planning the project. It is planned to pursue diligently each year work preparatory to the development of the Cherry River watershed as a source of water and power.

Transbay Construction Company Litigation:

The case of Transbay Construction Company, contractor for the enlargement of O'Shaughnessy Dam under Hetch Hetchy Water Supply contract No. 149, versus City and County of San Francisco, continued active through the past fiscal year. On October 24, 1940, the judge in the District Court of the United States, Northern District of California, Southern Division, rendered an opinion to the effect that the company was not entitled to damages claimed under its first cause of action but that under the facts and circumstances as presented before him, the contract may be deemed abrogated and that the company should be permitted to recover on a quantum meruit basis or on the cost of labor and materials due, owing, and unpaid by the City in accordance with the company's second cause of action. The court referred the case to a United States Commissioner as Special Master to receive further evidence and report thereon to the court with his findings of fact and conclusions of law.

The case was tried before the Special Master during the period January 13, 1941, to April 2, 1941. Numerous exhibits not used in the initial trial were prepared for this case, and following consultation with the City Attorney's office, employees who had been connected with the work of enlarging the dam acted as witnesses during the trial. The books of the company were studied through a firm of certified public accountants employed by the City, and other engineers were consulted in the preparation of the data for the trial.

Closing briefs were filed by the attorneys in May, 1941. As of June 30, 1941, the referee or the court had not yet indicated a decision in the case.

Hetch Hetchy Railroad:

The Hetch Hetchy Railroad is not now a common carrier, but, as an industrial spur, is maintained in condition for use by the City in transporting materials and men over the project when other means of transportation are not available, or for convenience in hauling carload shipments. The railroad was used only a few times during the past winter, because in general the snowfall conditions were such as to permit the use of automobiles and trucks on the roads when transportation was necessary.

In the fall of 1940 considerable work was done in leveling, gaging, and servicing where necessary, in preparation for the winter use of the line. In addition to the usual routine maintenance work, a cattle guard (structure 19L) in Mile 19, the South Fork bridge was repaired with timbers salvaged from the dismantled Groveland Hospital, a substantial rock fill was placed in a wash-out at Mile 23, and young trees were cut on the right of way. The heavy rainfall of the past winter necessitated the removal of many slides, and also the cutting of early heavy grass from the right of way to insure traction on the rails near Moccasin.

Watersheds and Impounding Reservoirs:

During the winter of 1940-41 the department's men made or assisted in making snow surveys on the watersheds above the City's reservoirs. Maintenance crews assisted the reservoir keepers at Lake Eleanor and Hetch Hetchy in clearing the reservoirs of logs, in repairing the roads, and in other maintenance work. Logs accumulated in previous years were burned in the fall of 1940.

During the low water stage of Hetch Hetchy reservoir last winter, steel ladders were installed on the south bank just upstream from the spillway of the Hetch

EARLY INTAKE DIVERSION DAM
Water released from O'Shaughnessy reservoir is backed up here to enter first tunnel in long journey to San Francisco.

Hetchy reservoir to give safe access to maintenance boats used on this reservoir. A second boat was conditioned for use on the Hetch Hetchy reservoir.

Quarters at O'Shaughnessy Dam:

Minor improvements were made to buildings, roads and grounds in the vicinity of O'Shaughnessy Dam. The bunkhouse for work crews was altered to provide more sleeping accommodations, and a new hot water tank and kitchen range were installed there. The "cave" warehouse alongside the loop road was cleaned out. This had previously been used as a powder house but changes in the vicinity had made such use inconsistent with safety laws, so a new powder house was built of reinforced concrete in the area enclosed by the loop road, at a legal distance from all other structures and from the public road. The water supply tanks were repaired and the water supply pipe line was rebuilt better to insure a continuous supply to the camp.

Quarters at Lake Eleanor:

Surveys and plans were completed, and specifications are in preparation, for the construction of a new cottage and garage at Lake Eleanor for use by the reservoir keeper and his family. Construction will be undertaken when financing is provided for.

O'Shaughnessy Dam:

Strain gauge readings, deflection measurements and temperature measurements, mentioned in previous annual reports as part of a comprehensive survey of stress conditions in O'Shaughnessy Dam, were continued.

The concrete foundation for the boat house at the dam was torn out and rebuilt, and the boat hoist was dismantled and overhauled during the year.

Studies were made during the year on methods to be used and construction necessary for the protection of the dam against sabotage.

Mather Recreation Camp:

The Engineering Bureau, at the request of and with funds furnished by the Recreation Commission, prepared plans and specifications, and supervised the construction of water supply facilities for the Mather Recreation Camp. The work was done under Hetch Hetchy Supply Contract No. 188. It included construction of a pumping unit, tanks, a chlorinating system, and connecting pipe lines for using water from the gravel beds east of the camp. This system was developed to make the camp independent of the supply from Canyon Ranch, which was delivered through a pipe line, several miles long, laid many years ago, and now requiring considerable maintenance work.

Lower Cherry Aqueduct:

The continued advantageous operation of the small Early Intake power plant justifies the occasional relatively inexpensive improvements made from time to time in the Lower Cherry Aqueduct, which carries water diverted from the Cherry River to the power plant.

Under Contract No. 186, E. T. Lesure, contractor, a short section of wood flume at the downstream portal of Tunnel No. 2 was replaced with a reinforced concrete flume, and the wooden roadway bridge along the Cherry Canal upstream from Tunnel No. 3 was replaced with metal cribbing and earth fill. All open wood flume originally constructed in the Lower Cherry Aqueduct has now been replaced with tunnel, steel pipe, and the concrete flume just built.

Under Contract No. 187, E. T. Lesure, contractor, removed an accumulation of boulders, gravel and sand partly obstructing the flow in Tunnels 1 and 1-A. This work was done to restore the water-carrying capacity of the aqueduct, and is a job which must be done periodically due to the conditions at the intake at the Cherry diversion dam. During flood flows in the Cherry River, water-borne sand, gravel, and cobbles become pocketed in front of the grizzlies at the intake, and in order to permit water to enter the tunnel, it is necessary to remove the grizzlies and permit the accumulated material to pass through the headgates into the aqueduct. This was done several times during the past year.

Plans and specifications are ready for the construction of a sluiceway in the dam which will prevent or alleviate the above-mentioned condition. Proposals for doing the work under these specifications will be taken when funds are available.

Maintenance crews repaired a bad leak in the canal near the entrance to Tunnel No. 3 and reconstructed Spillway D, installing a new gate and replacing the wooden discharge flume with corrugated metal pipe. Several places in the canal between Tunnels Nos. 2½ and 3 and between Nos. 3 and 4 where the concrete side

lining had worn thin were patched with concrete. A guard rail was placed, as a safety measure, for approximately 1,000 feet along the narrow trail giving access to the Lower Cherry diversion dam.

At the Early Intake camp the three-inch water supply line was replaced by a four-inch line, buildings were painted and renovated, a new cesspool was constructed to serve the school house, and other maintenance work was done.

Main Aqueduct, Mountain Division:

The fiscal year's work in this division, which consists of a 5-mile tunnel and a 14-mile tunnel connected by a short length of steel pipe crossing the South fork of the Tuolumne River, was principally maintenance. Brush was cut and burned along the electric power line and telephone line rights of way, roads were maintained and improved, decayed or damaged poles were replaced on the telephone line, and other work of a similar nature was done. At Groveland the old hospital building was wrecked and the usable material was salvaged. The water supply system built for shop use at Groveland was reconstructed, the triplex pump and tanks being replaced with a pressure pumping system.

In the spring of 1941, a thorough examination of the tunnels and adits in this division was made. The tunnel was found to be in satisfactory condition. Deposits of sand and gravel in the invert of the tunnel were found to be fewer and to contain less material than in previous years.

At the time of the tunnel inspection, when the water was low at the Early Intake diversion dam, some of the rubber seals on the radial gates on this dam were replaced with new seals, and repairs were made to the tunnel intake gates.

Main Aqueduct, Moccasin Division:

The usual routine maintenance of buildings, roads, and other facilities in this division continued throughout the year. Buildings were painted, improvements were made to gardens, and repairs and other maintenance work was done on water and electric supply and other utilities at the headquarters establishment.

A 10-ton traveling crane salvaged from the machine shop at Livermore was installed in the machine shop at Moccasin. The pits in the machine shop were repaired and a wash rack constructed. The wash rack consists of a 6-inch reinforced concrete slab connected with the south end of the machine shop floor. Warehouse No. 1 was sheathed with corrugated iron salvaged from the dismantled warehouse at Hetch Hetchy Junction.

The heavy rains of the past winter necessitated considerable work on facilities provided to prevent the polluted water of Moccasin and Grizzly Creeks from entering the Moccasin reservoir and mixing with the water in the main aqueduct. The Grizzly Gulch tunnel under the Hetch Hetchy railroad was partially obstructed by large boulders; this channel was cleared by blasting, in preparation for the storm waters. Large quantities of trees, branches, and other trash had accumulated in front of the entrance to the by-pass conduit under Moccasin reservoir. This condition caused an accumulation of sand and gravel at the entrance. After the trash racks were cleared, the sand and gravel were moved through the by-pass conduit by agitating them in the high velocity flow entering the conduit.

O'SHAUGHNESSY DAM SPILLWAY
After O'Shaughnessy dam has been filled to capacity, the excess water flows over this structure through solid granite channel.

The downstream face of Priest reservoir was cleared of brush.

A fire broke out in one of the garages of the Moccasin Camp, presumably due to static electricity igniting some gasoline as it was being drawn from a 50-gallon drum into a 5-gallon filler. The flames were extinguished with carbon dioxide, but not before the roof and adjoining stalls were badly damaged. The damage caused by this fire was repaired immediately.

Main Aqueduct, Foothill Division:

This division, which embraces 15.95 miles of tunnel and the Red Mountain Bar siphon, required the usual maintenance work. Roads were maintained, a new road was graded to the Don Pedro reservoir surface at Red Mountain Bar, the exposed Red Mountain Bar siphon was spot-painted where necessary, and similar work was done.

The large warehouse at Hetch Hetchy Junction was dismantled, and the salvaged material was used elsewhere on the project, or stored for future use. Some of the large timbers were used for the reconstruction of road bridges in this division. At Brown Adit and Red Mountain Bar dilapidated buildings remaining since construction and no longer required for use were burned.

Surveys of the condition of springs and wells in this division were continued, maintaining the record which was begun years ago, before construction commenced, for use in adjusting or combatting any claims that might be made by owners of property adjacent to the aqueduct on account of alleged damage to water supply on their properties due to tunnel construction. The old construction camp water supply pipe line in this division, which is still in use, used to serve owners claiming damage, required much servicing to maintain it in continuous operating condition. Surveys and estimates were made for improvements to these water lines, and funds were set up in the budget for the next year for replacements designed to reduce the maintenance cost on the lines and to insure their continued operation.

San Joaquin Division:

The 47½-mile pipe line crossing the San Joaquin Valley in this division was patrolled regularly throughout the year. The line is covered in about a month's time, and as part of the work of patrolling, all structures are inspected, observations are made on conditions in the vicinity of the pipe line, mechanical equipment is tested, and minor repairs and maintenance work are effected. Major items of maintenance work found necessary during the patrolling are handled by special crews. Exposed sections of the pipes and other structures were painted, weeds and brush were cut from the vicinity of the structures, oil was spread at these points in an effort to suppress weed growth, and new right-of-way gates, bridges, and culverts were installed at certain locations. Electrolysis having caused a few leaks in the main pipe line (as mentioned in the last annual report), a survey was commenced and studies are in progress with a view to providing electrolysis control for permanent protection against electrolysis damage to the pipe line.

Main Aqueduct, Coast Range Division:

The aqueduct in this division consists of 28.52 miles of tunnel and .59 mile of reinforced concrete pipe. Routine maintenance of roads and of surface structures appurtenant to the tunnel was done.

Prolonged rainfall made considerable road work necessary; this was done with City forces, assisted by equipment from other divisions. A new deck was placed on the bridge across Mocho Creek, and new decking and stringers were placed on the Arroyo Valle bridge. Through the cooperation of San Joaquin County, the road through Tesla and Corral Hollow was scraped and resurfaced, and three bridges were rebuilt, at no cost to the City.

Seepage of water at the collar of the overflow shaft, at Alameda Creek East Portal, was stopped by forcing cement grout behind the concrete lining. The work was done to prevent undermining the structure and corrosion of the steel overflow pipe insert at this point.

Work was commenced on removing the old building formerly called the "gas shop" from the headquarters establishment on the Southern Pacific property in Livermore to the new headquarters establishment on City property, on School Street in Livermore. Here the building will be rebuilt and serve as a warehouse for the Hetch Hetchy water supply and power divisions. This work will be completed in the early Fall.

Surveys of the condition of springs and wells, for the purposes mentioned elsewhere in this report, were continued throughout the year in this division. As in previous years, water was furnished to property owners alleging damages to the water supply on their property.

Main Aqueduct, Bay Crossing and Peninsula Divisions:

The Bay Crossing and Peninsula divisions of the main Hetch Hetchy Aqueduct are under the jurisdiction of the San Francisco Water Department, and activities in these divisions are described in that department's report.

Financial Statements:

The financial statements relative to the construction, operation, and maintenance of the Hetch Hetchy Water Supply are given in this report at the end of the descriptive report of the Hetch Hetchy Water Supply, Power and Utilities Engineering Bureau.

Contracts:

Current contract data on Hetch Hetchy Water Supply contracts for the fiscal year 1940-1941 follow:

No. 186—Replacing sections of roadway bridge and flume on the Lower Cherry Aqueduct: E. T. Lesure, Contractor. Date of start, October 29, 1940; time allowed, 90 days; completed, November 30, 1940. Price bid, $6,351.93; total payment, $6,331.03. Fund—Reconstruction and Replacement.

No. 187—Removing sand, gravel, and boulders from tunnels, Lower Cherry Aqueduct: E. T. Lesure, Contractor. Date of start, December 7, 1940; time allowed, 40 days; completed, December 16, 1940. Price bid, $3,250.00; total payment, $2,237.85. Fund—Operating.

No. 188—Constructing a water supply at Camp Mather: Scheumann & Johnson, Contractors. Date of start, March 29, 1941; time allowed, 60 days; completed, June 2, 1941 (conditional acceptance, excepting later installation of pump and pump unit, cost $1,165.00). Price bid, $9,825.00; total payment, $9,825.00. Fund—Recreation Department.

No. 189—Constructing a cottage at Moccasin: specifications prepared; work postponed.

HETCH HETCHY POWER OPERATION

The Hetch Hetchy Power Division continued in operation for another year, as extensions of time were granted staying the injunction of the Federal Court which would have stopped delivery of power to the Pacific Gas and Electric Company. A résumé of the efforts made to comply with the power sale restrictions of the Raker Act is presented under the heading "Power Disposal." The preparation of various plans for marketing Hetch Hetchy energy entailed a large number of engineering and economic studies.

As Hetch Hetchy is a joint water and power project, some construction and maintenance work bearing on power has already been discussed under "Hetch Hetchy Water Supply."

Water Conditions:

At Hetch Hetchy reservoir, draft from storage did not start until July 17, 1940. The reservoir filled again on May 23, 1941, and was still spilling at the end of the fiscal year.

Lake Eleanor was spilling in 1940 until July 15. This reservoir filled again on January 28, 1941, and was still full at the end of the fiscal year.

Minimum storage was reached on December 22, 1940, when there was 136,890 acre-feet in the two reservoirs. As the winter precipitation was well above normal, an ample water supply for the next fiscal year is assured.

Storage on June 30 of the last two years was:

	Acre Feet	
	1940	1941
Hetch Hetchy Reservoir	341,218	346,068
Lake Eleanor	28,777	28,197
Priest Reservoir	543	939
Total	370,538	375,204

Early Intake Power House:

In addition to routine maintenance, the No. 2 turbine was overhauled. While spring floods brought down much debris in the streams, no material damage to structures at this location was suffered.

Moccasin Power House:

Draining of the Mountain Tunnel to permit of inspection resulted in the loss of about two days' generation. The results of this inspection are mentioned elsewhere in this report.

Besides regular maintenance work in the power house, the generators were opened up and cleaned so that more load can be carried in hot weather.

Plans were made for the installation of a transformer bank and oil circuit breakers released from the former Seco substation. These will be cut in between the 22,000-volt line from Early Intake power house and the Moccasin high-voltage buses. At present the power from the Early Intake line is stepped down to 11,000

MOCCASIN POWER HOUSE
Water entering tailrace phase after leaving the giant turbines at foot of penstocks.

volts at Moccasin and then superimposed on the load of one of the generating unit transformer banks stepping up to the high-voltage buses. This arrangement, which was in existence before Early Intake was regularly operated in parallel with Moccasin, causes transformer overheating in warm weather.

Transmission and Communications:

The work of installing armor rods on the Moccasin-Newark lines was continued. This work is done without removing the line from service, using the equipment and methods developed last year and described in the last previous annual report.

The usual maintenance work was done on the telephone and 22,000-volt lines, replacing poles and fixtures as necessary.

Power Production:

The output for the year was not greatly different from that of the preceding year. Because of better water conditions, Early Intake power house increased its generation, but this was offset by a shutdown at Moccasin power house during the tunnel inspection. Furthermore, as 1940 was a leap year, there is a difference of one day in the two fiscal periods.

Output Data:

FISCAL YEAR 1940-1941

Hetch Hetchy Water Supply—Power Division

Generating Equipment:

Early Intake .....3 hydro units, nameplate rating 1,000 KVA each
Moccasin .....4 hydro units, nameplate rating 20,000 KVA each

Load:

	Maximum kw.	Time		Load Factor
Early Intake	3,900	Dec. 30, 1940	11-12 noon	74.2
Moccasin	52,000	July 8, 1940	7-8 a.m.	70.0
Simultaneous	85,800	July 8, 1940	7-8 a.m.	70.3

Gross Generation:

	1940-41 kwh.	1939-40 kwh.	% Change
Early Intake	25,364,700	23,225,600	+ 9.21
Moccasin	502,951,500	506,111,000	— 0.62
Total Available	528,316,200	529,336,600	— 0.19
Disposition:			
Used at Power House	745,700	772,000	— 3.41
Used on System	1,457,182	1,254,885	+16.12
Consigned to P. G. & E. Co.	492,074,400	493,888,800	— 0.37
Losses and Unaccounted For	34,038,918	33,420,915	+ 1.85
Total Energy	528,316,200	529,336,600	— 0.19

Power Disposal:

Throughout the past year there was a concentrated effort on the part of the Mayor, the City Attorney, and the Manager of Utilities in an endeavor to solve the problem of disposal of power in a manner which would comply with the terms of the Raker Act as interpreted by the courts. This act of Congress granted the City rights to water in Yosemite National Park and required development of power with a prohibition from "selling or letting" to a private agency "the right to sell or sublet" the electric energy. The Secretary of the Interior is empowered to bring court action to enforce compliance with the terms of the act.

Lacking distribution facilities, the City has until now been delivering Hetch Hetchy power to the Pacific Gas and Electric Company under an agency contract. The legality of this procedure was questioned by Secretary of the Interior Harold L. Ickes, and under the authority of the Raker Act he initiated suit for a restraining order against continuance of this arrangement with the Company. This was granted by the United States District Court, reversed by the Circuit Court, but was sustained by the Supreme Court on the ground that the agreement was not an agency contract and that Hetch Hetchy power was actually sold to the company.

As stated in the last annual report, the court granted a stay of execution of the restraining order until August 1, 1940. This was conditional upon stipulations made by Secretary Ickes that the City in the meantime negotiate with the company for a lease with option to purchase the San Francisco electric distribution system and in addition hold a bond election not later than September 15, 1940, to finance the purchase.

A HUNDRED THOUSAND HORSES
Generator bank at Moccasin power house, where most of Hetch Hetchy power is produced.

Negotiations were promptly and energetically carried on with the company officials. It was not possible to arrange an option for purchase at a price that was not exorbitant. Furthermore, a terminable lease of an operating utility presents many practical difficulties, particularly as the owner of the system naturally wishes to safeguard his interest in the property and its operating organization because of the prospect of having to take the system back.

A lease proposal known as "Plan C" was prepared under which the Company would transmit Hetch Hetchy power from Newark to San Francisco, furnish standby service and supplementary power, operate and maintain the distribution system, make additions as required, and furnish billing and collecting service. The City would pay for all of these services plus a rental for the property. Rates would be fixed by the City.

Plan C was submitted to the Secretary for approval on July 23, 1940, in accordance with his stipulation. He objected particularly to the company performing the collecting, billing and soliciting of new business. He stated that while the plan met the court objections in the government suit, it was fundamentally an agency agreement. As such, in his opinion, it contemplated "selling or letting" to the company "the right to sell or sublet" Hetch Hetchy power, and was therefore illegal under the Raker Act. Accordingly he disapproved of Plan C.

By agreeing to further stipulations imposed by the Secretary of the Interior, the City obtained from the court another stay of the restraining order for sixty days, which was afterwards extended to June 30, 1941. In compliance with these stipulations, the City renewed negotiations with the Company in an effort to arrive at a lease agreement that would meet with the approval of the Secretary.

Plan E, which followed, differed from Plan C mainly in that City employees would perform the billing, collecting and soliciting of new business. The company would transfer to the City organization certain of their employees formerly engaged in those activities. Charter amendments were passed granting civil service rights and retirement privileges to the employees thus transferred.

Plan E in complete outline was submitted to Secretary Ickes for approval on November 25, 1940. On December 3 he gave tentative approval to the plan as "contemplating formal compliance with the Raker Act," but withheld formal approval as the definitive agreement had not been drawn up.

As soon as the complete lease agreement was ready, it was sent to the Secretary, who made it the subject of a special public hearing held at Washington beginning May 21, 1941. Estimates submitted with the lease indicated that the City, after paying marketing expenses and company charges, would get $2,666,849, as compared to $2,400,000 now received for delivery of power to the company at Newark.

At the hearing, the lease was attacked by representatives of the Department of the Interior, the Federal Power Commission, and organizations favoring municipal ownership. At the close of the hearing, the Secretary disapproved of the lease on the ground that it did not permit of cheap power for San Francisco, which he claimed was a purpose of the Raker Act.

This left the City, about to enter a new fiscal year, facing the loss of $2,400,000 in power revenue. In order to obtain an extension from the court until June 30, 1942, the Mayor, the Public Utilities Commission, the Manager of Utilities, and the Board of Supervisors agreed to eight stipulations of the Secretary of the Interior. The requirements in the main were as follows:

1. The City will submit a revenue bond proposition at the general election on November 4, 1941, to provide for a municipal power system for transmission to and distribution in San Francisco. The plan for this system must have prior approval of the Secretary of the Interior and must be submitted to him on or before August 15, 1941.

2. The Mayor, the Public Utilities Commission, the Manager of Utilities, and the Board of Supervisors are to actively support the bond proposition in specified ways.

3. The Mayor, the Supervisors, and the Public Utilities Commission must not initiate any proposition to amend the Raker Act prior to the election and must oppose such action by others.

4. The same officials must not initiate any other charter amendment or bond proposition to go on the ballot at or before the November election without the approval of the Secretary of the Interior.

5. Upon passage of the power bond proposition the City is bound to proceed with the project.

6. If the City enters into a distribution agreement with a private agency without the approval of the Secretary of the Interior, the stay of the court restraining order is terminated upon application of the government.

7. The City agrees to effectuate compliance with the Raker Act on or before July 1, 1942.

8. The City agrees that if the bond proposition does not carry it will not seek a further stay of the restraining order.

In granting the stay until June 30, 1942, Judge Roche stated that he will refuse any further extensions.

Immediate steps were taken to carry out the stipulations. At the request of the Mayor, the Board of Supervisors passed a declaratory resolution determining that public interest and necessity demand the acquisition or construction and completion of a public utility consisting of an electric distribution system in San Francisco, a power line from Newark to San Francisco, and a hydroelectric power plant at Red Mountain Bar, and calling upon the Public Utilities Commission for a report on this project. Preparation of this report was in progress at the close of the fiscal year.

In the last annual report it was stated that a proposed amendment to the Raker Act eliminating the restrictions on power disposal was before the Public Lands Committee of the House of Representatives. There has so far been no prospect of favorable action on the amendment by this committee. Furthermore, stipulations made a part of the court orders for extensions required the City to refrain from seeking to have this act amended.

The net effect of the developments of the past fiscal year is to limit the City to a choice between engaging in power distribution over a municipally owned system, or else shutting down the Hetch Hetchy power development with attendant loss of much-needed revenue.

MUNICIPAL RAILWAY ENGINEERING

The increasing street railway use and the policy of the Municipal Railway to maintain its property in good condition and to construct new facilities to meet changing needs have resulted in the construction of several major improvements during the past fiscal year. The major items of such work which the Hetch Hetchy Water Supply, Power and Utilities Engineering Bureau has been identified with are given below.

TROLLEY COACH SHOPS
New inspection and repair shops for trackless trolleys at Seventeenth Street yards.

Howard Trolley Bus Line:

At the beginning of the fiscal year, completion of the Howard electric trolley bus line was held up by litigation instituted in the name of Luther L. Putnam. The Municipal Railway started service over the trolley bus route with motor buses in July. This service was self-supporting and was advantageous in that this mass transportation route was continued pending the operation with trolley buses.

A W. P. A. project sponsored by the Public Works Department was started during the fiscal year to widen the street between Ninth and Fourteenth Streets, bring it up to grade, remove the car tracks, and install a sewer. In connection with this work, Municipal Railway forces set back the trolley poles with the assistance of relief labor.

After several months of delaying all work on this line, the Putnam suit was dropped, and in June, 1941, the Severin Electric Company resumed work on Contract No. 186 for the trolley installation. Extra work in the amount of $2,030.31 was authorized because of changes that became necessary since the contract was awarded in 1939. It is expected that this contract will be completed at about the same time as the carhouse facilities.

Because of the track removal mentioned above, it was necessary to install a feeder to maintain suitable conductivity of the distribution system. This was

covered in Contract No. 196 in the amount of $1,290, awarded to the Severin Electric Company on May 21, 1941. This work will be completed in July.

The nine trolley buses on order were delivered after the Putnam suit was dropped, and are being stored temporarily at the Mariposa Street yard. Acceptance tests of these buses has been deferred until the service facilities at the carhouse are completed. In the meantime the St. Louis Car Company has been paid 90 per cent of the contract amount.

The trolley buses seat 40 passengers and are equipped with single 125-horsepower motors. They are designed to operate over the grades of the E line on Union Street, when and if that line is converted for trolley buses, and still have satisfactory speed on level streets. They will furnish superior service over that rendered by the gas motor buses now on the Howard Street line, as they will have greater capacity, higher speed, better operating characteristics, and at the same time be free from noise and fumes. The operating costs will also be lower.

Addition to 17th Street Carbarn:

A reinforced concrete structure now being erected on the second floor of the 17th Street carbarn will provide shop facilities and storage space for the electric trolley buses.

The carbarn was originally designed as a two-story building but only one bay of the second story had been constructed, leaving a large unused portion of the second floor, designed for heavy loads, available as a site for these trolley bus facilities.

As stated in the last annual report, bids were received for the construction of this addition to the carbarn, but the Putnam suit prevented the award of the contract. Upon the dropping of this litigation the project was revived and new bids were received. On March 10, 1941, the contract was awarded to Leo Epp for the estimated cost of $39,227.50. At the close of the fiscal year the work was about 50 per cent completed.

Terminal Loops:

At each end of the Howard Street trolley bus line loops are provided for turning the buses. On November 1, 1939, a lease was executed between the City and Katherine Dunlea, et al., covering a piece of property on the easterly side of South Van Ness Avenue, between 26th and Army Streets, and a portion of this property was used for a loop and waiting station. The grading and paving of this lot, interrupted by the Putnam suit, was completed in June, 1941, by Pacific Pavement Company, the total cost of the work being $466.80.

The other loop, at Howard and Beale Streets, is located on land leased from the State of California. This lease was executed on June 30, 1940. Informal bids for paving this area were received on June 25, 1941, Eaton & Smith being the low bidder in the amount of $829.00. This work will be completed in July of this year.

Mariposa Street Yard:

The enlarging of the Mariposa Street yard, begun last year under Municipal Railway Contract No. 185, was resumed upon dropping of the Luther Putnam

O'SHAUGHNESSY DAM
Upstream view of dam and reservoir, source of much of San Francisco's water and power.

suit and work was completed on June 12, 1941. The contractor was E. J. Treacy, and the final contract price was $19,303.84. This improvement adds much needed space and spur tracks for the handling and storing of railway track materials.

Track Reconstruction:

The program of track reconstruction was continued during the year. The reconstruction of the tracks on Geary Street, between Powell and Fillmore Streets, begun last year under Municipal Railway Contract No. 176, was completed on September 17, 1940, by Eaton & Smith, the total contract price, including a bonus of $1,000, being $128,756.99.

Upon completion of Contract No. 176, the portion of Geary Street between Fillmore and Divisadero Streets was reconstructed under Contract No. 191, entered into on September 28, 1940. The work was completed November 14, 1940, by Eaton & Smith, the total contract price, including a bonus of $1,000, being $40,271.88.

Heavy reconstruction work was suspended during the winter months but was resumed under Municipal Railway Contract No. 194, entered into on May 6, 1941, with Eaton & Smith for an estimated contract price of $54,939.75. This contract, now nearing completion, covers Geary Street between Divisadero and Lyon Streets, and Geary Boulevard between Jordan and Third Avenues.

Specifications for additional reconstruction on Geary Boulevard from Third Avenue to Tenth Avenue have been prepared and it is expected this work will be started upon completion of Contract No. 194.

As a result of this extensive reconstruction program, the portions of the Geary Street line which were in the worst condition after nearly 30 years of very heavy traffic will be placed in first-class condition.

Reconstruction on Market Street:

The Market Street tracks from Geary Street to Castro Street are nearly worn out and their reconstruction has been contemplated for some time. Between Valencia and Castro Streets two tracks are ample for the railway traffic, and instead of reconstructing the outer—or Municipal—tracks it was proposed to abandon them entirely and reconstruct the inner tracks, which are the property of the Market Street Railway. This plan, by eliminating two of the four tracks west of Valencia Street, would improve traffic conditions on this portion of Market Street.

An agreement covering the project was entered into between the Market Street Railway and the City on September 16, 1940, and plans and specifications were prepared for the work. Questions regarding the legality of the proceedings were raised, however, and the project was temporarily deferred. On June 30, 1941, Ordinance No. 1243, authorizing the agreement between the Market Street Railway Company and the City, was finally passed by the Board of Supervisors, and the way now seems clear for proceeding with the work as planned. It is expected that a contract for the work will be entered into upon the purchase of certain track special work which is required for the construction.

Car Shop and Garage:

The Municipal Railway is badly in need of a suitable car repair shop and garage for trolley buses. Property belonging to the San Francisco Water Department on Seventh Avenue, near Lawton Street, was considered as a possible garage site, but opposition on the part of property owners led to the abandonment of this location.

The next location considered was Water Department property on Ocean Avenue west of Phelan, a portion of the so-called Balboa Reservoir Site. This area would accommodate both a car repair shop and a bus garage. It was proposed for the time being to defer the construction of the car shop and proceed with the construction of the garage portion to accommodate approximately 100 buses. By Resolution No. 4235, adopted February 24, 1941, the Public Utilities Commission appointed W. P. Day architect to furnish the necessary plans and specifications for this work.

SAN FRANCISCO AIRPORT ENGINEERING

The preparation of plans and specifications and the supervision of construction work at San Francisco Airport by the Hetch Hetchy Water Supply, Power and Utilities Engineering Bureau continued actively during the fiscal year 1940-41 as in previous years. The work included completion of the program for the im-

AIR TERMINAL BUILDING
Treasure Island's administration building as seen from Exposition's Treasure Garden.

provement of the landplane and seaplane ports, with funds available from the 1938 bond issue in the amount of $2,850,000, augmented by contributions from the Federal Government under Work Projects Administration projects. Extended construction of concrete apron pavements and taxiway pavements was completed during the year, and progress was made in placing about 1,000,000 square feet of penetration macadam pavement for runway extensions and taxiways. Work on the drainage system involved the installation of drain pipe in the field extension area and areas adjacent to the new Air Line Terminal, and the completion of the drainage pumping plant. Improvements were made to the sewage disposal, power, and field lighting systems, the seaplane harbor and channel were dredged, and other improvements were made in connection with the United States Coast Guard Station, which was formally dedicated February 15, 1941. A major item of work was the administration and supervision of construction of the extensive terminal facilities being provided in the northwesterly corner of the airport properties east of Bayshore Highway for use under lease by the United Air Lines.

More detailed information on San Francisco Airport engineering and construction is given in the section of this report devoted to the San Francisco Airport.

TREASURE ISLAND AIRPORT

During the fiscal year 1940-41 the development of Treasure Island as a municipal airport moved rapidly forward. Following the close of the Golden Gate

International Exposition on September 29, 1940, the work of demolishing and removing temporary structures constructed on Treasure Island solely for Exposition purposes was commenced by Dulien Steel Products, Inc., under a contract with the Exposition Corporation. The specifications for demolition were reviewed by the Engineering Bureau, and inspectors were employed to watch the demolition operations closely so as to insure that all structures and facilities on Treasure Island owned by the City shall be left in proper condition.

On October 15, 1940, application was made to the Work Projects Administration for a project in the total amount of $113,561 for general rehabilitation and improvements to the southerly end of Treasure Island and other work to adapt the island for future use as an airport. While this application was under consideration, the United States Navy indicated its desire to occupy Treasure Island.

Early in December, the Mayor, in conference with Navy officials in Washington, discussed preliminary arrangements for the Navy's occupancy. These discussions continued after the Mayor returned to San Francisco, with the result that a lease agreement dated February 3, 1941, was completed. This agreement provides for the Navy's occupancy of all of Treasure Island except that portion leased to the Pan-American Airways Company, and that portion in the immediate vicinity of the air terminal building. The Navy was also given use of one-third of the Administration Building. The lease was written on a year-to-year basis with the right of annual renewal for five years. As a consideration for the rights granted by the City, the Navy Department sponsored a Work Projects Administration project in the amount of $1,680,000 for construction of two intersecting runways, connecting taxiways, aprons, field light and drainage systems, rehabilitation of buildings and utilities, and much other work, which when finished would constitute an airport ready for operation. Work under this project commenced immediately following the ground-breaking ceremonies held April 24, 1941. At the close of the year progress had been made in preparing foundations for the runway pavements, rehabilitation of buildings, and miscellaneous other items.

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

CONSOLIDATED BALANCE SHEET

June 30, 1941

ASSETS AND OTHER DEBITS

Utility Plant	Total	Power	Water
Electric Plant	$12,387,679.69	$12,387,679.69	.....
Water Supply Property	93,243,812.41	.....	93,243,812.41
Construction Work in Progress	3,778.21	276.47	3,501.74
Total Utility Plant	$105,635,270.31	$12,387,956.16	$93,247,314.15
Less Reserve for Depreciation	11,866,673.43	4,158,335.89	7,708,337.54
Remainder Depreciated Value	$93,768,596.88	$8,229,620.27	$85,538,976.61
Investments			
Other Physical Property:			
Amazon and Glen Park Reservoir Sites	$460,925.00		$460,925.00
Total Investments	$460,925.00		$460,925.00
Current and Accrued Assets			
Cash on Deposit with Treasurer:			
Hetch Hetchy Project Operating Fund	$96,936.86		$96,936.86
Hetch Hetchy Reconstruction and Replacement Fund	289,980.57	$145,719.47	144,261.10
Hetch Hetchy Bond Funds	114,200.92		114,200.92
Special Deposits with Treasurer:			
Hetch Hetchy Bond Interest Funds	862,032.50		862,032.50
Hetch Hetchy Bond Redemption Funds	1,055,000.00		1,055,000.00
Hetch Hetchy Water Supply Land Purchase Fund	1,302.50		1,302.50
Working Funds:			
Revolving Funds	8,000.00	3,000.00	5,000.00
Accounts Receivable:			
Pacific Gas & Electric Company	200,152.20	200,152.20	
Other Consumers and Miscellaneous	477.82	453.57	24.25
Receivables from Municipality:			
Inter-Fund Accounts—P. S. E.:			
San Francisco Water Department	93,546.16		93,546.16
Hetch Hetchy Power Division (Contra)	171,261.70		171,261.70
Municipal Railway	1,139.33		1,139.33
San Francisco Airport	8,734.82		8,734.82
Inter-Fund Accounts—General City and County:			
Recreation Department	10,683.94	514.59	10,169.35
Department of Public Works	1,291.65		1,291.65
General Fund	14,315.58		14,315.58
Material and Supplies:			
Electric	17,845.31	17,845.31	
Corral Hollow Pipe Line	275,393.71		275,393.71
Prepayments:			
Prepaid Rent	15,000.00		15,000.00
Tesla Chlorinator Power Line	2,575.50		2,575.50
Total Current and Accrued Assets	$3,239,871.07	$367,685.14	$2,872,185.93
Deferred Debits			
Cash Withheld by Hetch Hetchy Water Supply for Work Enc., But Not Yet Performed (Contra)	$35.83	$35.83	
Suspense Debits:			
Sales Tax (Contra)	4,433.99	15.82	$4,418.17
Preliminary Investigations and Surveys:			
Cherry River Development	18,996.02		18,996.02
Commitments (Contra)	30,990.74	4,245.27	26,745.47
Work in Progress:			
Accounts Receivable and Inter-Fund	3,381.48		3,381.48
Total Deferred Debits	$57,838.06	$4,296.92	$53,541.14
Total Assets and Other Debits	$97,527,231.01	$8,601,602.33	$88,925,628.68

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

CONSOLIDATED BALANCE SHEET

June 30, 1941—Continued

LIABILITIES AND OTHER CREDITS

	Total	Power	Water
Long-Term Debt			
Bonds—Municipality:			
Issues 1910 to 1933, Due 12/1/1941 to 7/1/1977	$59,775,000.00	$7,121,700.00	$52,653,300.00
Total Long-Term Debt	$59,775,000.00	$7,121,700.00	$52,653,300.00
Current and Accrued Liabilities			
Accounts Payable and Commitments:			
Warrants Outstanding	$40,294.36		$40,294.36
Contracts, Purchase Orders, Etc., for Materials and Services Rendered	40,522.90	$3,533.47	36,989.43
Commitments (Contra)	30,990.74	4,245.27	26,745.47
Payables to Municipality:			
Inter-Fund Accounts—P. S. E.			
San Francisco Water Department	3,013.54	323.83	2,689.71
Hetch Hetchy Water Supply (Contra)	171,261.70	171,261.70	
Municipal Railway	603.09		603.09
Inter-Fund Accounts—General City and County			
Employees' Retirement System	2,034.06	283.93	1,750.13
Department of Public Works	55.95		55.95
Public Utilities Commission	64.63		64.63
General Fund	250,023.43	3.62	250,019.81
Matured Long-Term Debt:			
Matured Bonds Not Presented for Payment	55,000.00		55,000.00
Maturing July 1, 1941	1,600,000.00		1,600,000.00
Matured Bond Interest:			
Matured Coupons Not Presented for Payment	147,032.50		147,032.50
Maturing July 1, 1941	1,214,500.00		1,214,500.00
Interest Accrued—Not Due	33,369.99		33,369.99
Total Current and Accrued Liabilities	$3,588,766.89	$179,651.82	$3,409,115.07
Deferred Credits			
Suspense Credits:			
Sales Tax (Contra)	$4,433.99	$15.82	$4,418.17
Total Deferred Credits	$4,433.99	$15.82	$4,418.17
Reserves			
Injuries and Damages Reserve	$398.38		$398.38
Employees' Provident Reserve:			
Reserve for Vacations	2,652.66		2,652.66
Reserve for Sick Leave	1,909.41		1,909.41
Reserve for Retirement System	3,266.22		3,266.22
Reserve for Overhead and Miscellaneous Expense	32.24		32.24
Reserve for Advance Work Not Yet Performed:			
San Francisco Water Department	14,156.74		14,156.74
Hetch Hetchy Power Division (Contra)	35.83		35.83
Municipal Railway	35.83		35.83
Total Reserves	$22,487.31		$22,487.31
Total Liabilities	$63,390,688.19	$7,301,367.64	$56,089,320.55
Surplus			
Surplus (See Detail Annexed)	$34,136,542.82	$1,300,234.69	$32,836,308.13
Total Liabilities and Other Credits	$97,527,231.01	$8,601,602.33	$88,925,628.68

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

CONSOLIDATED COMPARATIVE INCOME STATEMENT

June 30, 1941

UTILITY OPERATING INCOME	July 1, 1940, to June 30, 1941				July 1, 1939, to June 30, 1940		
	Power	Water	Eliminate Duplications	Consolidated	Power	Water	Consolidated
Operating Revenue:							
Moccasin Power House							
General Consumers, P. G. & E. Company	$8,583,046.05			$8,583,046.05	$8,636,265.93		$8,636,265.93
Less Distribution Commission	6,271,202.57			6,271,202.57	6,310,087.70		6,310,087.70
	$2,311,843.48			$2,311,843.48	$2,326,178.23		$2,326,178.23
Construction, Operating and Miscellaneous	154.43			154.43	486.96		486.96
	$2,311,997.91			$2,311,997.91	$2,326,665.19		$2,326,665.19
Early Intake Power House:							
General Consumers, P. G. & E. Company	$328,814.99			$328,814.99	$308,455.36		$308,455.36
Less Distribution Commission	240,248.68			240,248.68	225,372.92		225,372.92
	$88,566.31			88,566.31	$83,082.44		$83,082.44
Construction, Operating and Miscellaneous	3,005.44			3,005.44	2,675.62		2,675.62
	$91,571.75			$91,571.75	$85,758.06		$85,758.06
Water Sales:							
Standby Charge and Sale of Water—San Francisco Water Department		$773,284.00		$773,284.00			
Standby Charge and Sale of Water—Hetch Hetchy Power		735,474.00	$735,474.00				
Total Operating Revenues	$2,403,569.66	$1,508,758.00	$735,474.00	$3,176,853.66	$2,412,423.25		$2,412,423.25

Operating Revenue Deductions:							
Operating Expenses							
Production Expense	$98,694.83	$112,477.97		$211,172.80	$143,134.43	$43,425.51	$186,559.94
Purchase of Water for Power	735,474.00		$735,474.00		0	0	0
Transmission Expense	28,748.59			28,748.59	29,148.78	0	29,148.78
Administrative and General Expense	29,026.71	70,166.66		99,193.37	65,873.09	68,898.91	134,772.00
Total Operating Expenses	$891,944.13	$182,644.63	$735,474.00	$339,114.76	$238,156.30	$112,324.42	$350,480.72
Depreciation Expense	284,768.50	1,317,938.05		1,602,706.55	304,842.78	1,309,483.49	1,614,326.27
Taxes (Actually Paid)		9,124.95		9,124.95	4,318.07	4,318.07	8.636.14
Fee to U. S. Government (Raker Act)		30,000.00		30,000.00	15,000.00	15,000.00	30,000.00
Total Operating Revenue Deductions	$1,176,712.63	$1,539,707.63	$735,474.00	$1,980,946.26	$562,317.15	$1,441,125.98	$2,003,443.13
Net Operating Revenues	$1,226,857.03	*$30,949.63*	0	$1,195,907.40	$1,850,106.10	*$1,441,125.98*	$408,980.12
OTHER INCOME							
Miscellaneous Non-Operating Revenue	$3,867.12	$2,961.90		$6,829.02	$11,215.03	$2,567.51	$13,782.54
Gross Income	$1,230,724.15	*$27,987.73*	0	$1,202,736.42	$1,861,321.13	*$1,438,558.47*	$422,762.66
INCOME DEDUCTIONS							
Interest on Long-Term Debt	$330,619.49	$2,518,049.89		$2,848,669.38	$342,528.86	$2,608,792.18	$2,951,321.04
Total Income Deductions	$330,619.49	$2,518,049.89	0	$2,848,669.38	$342,528,86	$2,608,792.18	$2,951,321.04
Balance Transferred to Earned Surplus	$900,104.66	*$2,546,037.62*	0	*$1,645,932.96*	$1,518,792.27	*$4,047,350.65*	*$2,528,558.38*

Italic figures denote loss and deficiency.

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

CONSOLIDATED SURPLUS ACCOUNT

For the Twelve Months Ended June 30, 1941

	Power	Water	Eliminate Duplications	Consolidated
Surplus—June 30, 1940	$1,481,243.16	$31,919,775.98		$33,401,019.14
Adjustments Made in Current Year Applicable to Prior Year's Surplus				
Additions to Surplus:				
Transfer of Portion of Corral Hollow Pipe Line Materials to San Francisco Water Department		88,942.18		88,942.18
Adjustment of Inventory of Corral Hollow Pipe Line Materials		1,543.71		1,543.71
Transfer of Westinghouse Electric Refrigerator from P. U. C. General Office to Damsite		76.43		76.43
		$90,562.32		$90,562.32
Deductions from Surplus:				
Adjustment of Depreciation Expense Prior to June 30, 1940	$994.55	$1,668.79		$2,663.34
Adjusted Surplus as of June 30, 1940	$1,480,248.61	$32,008,669.51		$33,488,918.12
Changes in Surplus for the Current Year				
Additions to Surplus:				
Net Earnings from Power Operations for Twelve Months Ended June 30, 1941	900,104.66			900,104.66
Contributions from Taxes and General Fund for Bond Interest and Redemption for 1940-41		1,500,617.36		1,500,617.36
Contributions Through General Fund from San Francisco Water Department for Bond Interest and Redemption, 1940-41		569,526.00		569,526.00
Contributions from San Francisco Water Department for Operating Expenses, 1940-41		223,414.30		223,414.30
Contributions from Hetch Hetchy Power Division for Bond Interest and Redemption, 1940-41		871,117.00	$871,117.00	
Additional Contributions from Hetch Hetchy Power Division for Bond Interest and Redemption, 1940-41		50,000.00	50,000.00	
Contribution from Hetch Hetchy Power Division for Reconstruction and Replacements, 1940-41		159,001.58	159,001.58	
	$900,104.66	$3,373,676.24	$1,080,118.58	$3,193,662.32
Deductions from Surplus:				
Net Loss from Water Production for Twelve Months Ended June 30, 1941		$2,546,037.62		$2,546,037.62
Contributions to Hetch Hetchy Water Supply for Reconstruction and Replacements, 1940-41	$159,001.58		$159,001.58	
Contributions to Hetch Hetchy Water Supply for Bond Interest and Redemption, 1940-41	871,117.00		871,117.00	
Additional Contribution to Hetch Hetchy Water Supply for Bond Interest and Redemption, 1940-41	50,000.00		50,000.00	
	$1,080,118.58	$2,546,037.62	$1,080,118.58	$2,546,037.62
Surplus—June 30, 1941	$1,300,234.69	$32,836,308.13	0	$34,136,542.82

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

CONSOLIDATED SURPLUS ACCOUNT
(Continued)

Composition of Surplus, Cumulative to June 30, 1941

Additions to Surplus:				
Net Earnings from Power Operations—August 16, 1925, to June 30, 1941	$21,530,525.89			$21,530,525.89
Contributions from General Fund for Bond Interest and Redemption		$32,618,277.69		32,618,277.69
Contributions from Hetch Hetchy Power Division for Bond Interest and Redemption and Construction		19,708,995.52	$19,708,995.52	
Contributions from Hetch Hetchy Power Division for Reconstruction and Replacements		171,668.03	171,668.03	
Contributions from San Francisco Water Department for Bond Interest and Redemption		2,905,345.00		2,905,345.00
Contributions from San Francisco Water Department for Operating Expenses		745,767.27		745,767.27
Contributions from San Francisco Water Department for Reconstruction and Replacements	1,228.59	27,789.77		29,018.36
Contributions from 1932 Hetch Hetchy Bond Fund for Four New Cottages at Early Intake	38,791.05		38,791.05	
Interest Received from Other Funds		77,801.23		77,801.23
Bond Premium, 1910-1932 Bond Funds		1,240,169.26		1,240,169.26
Bond Premium, 1933 Hetch Hetchy Dam Bond Funds		137,438.55		137,438.55
Grants Earned on Federal Public Works Projects—Hetch Hetchy Dam and Moccasin Diversion Works		1,211,450.00		1,211,450.00
Miscellaneous Additions to Surplus	3,179.49	399.77		3,579.26
	$21,573,725.02	$58,845,102.09	$19,919,454.60	$60,499,372.51
Deductions from Surplus:				
Net Loss from Water Production—July 1, 1935, to June 30, 1941		$22,913,462.16		$22,913,462.16
Bond Discount, 1910 Hetch Hetchy Bonds		737,956.39		737,956.39
Retirement of Corral Hollow Pipe Line		1,242,889.11		1,242,889.11
Cost of Newark-San Lorenzo Pipe Line Transferred to San Francisco Water Department		1,063,840.76		1,063,840.76
Contributions from 1932 Hetch Hetchy Bond Fund to Hetch Hetchy Power Division for Four New Cottages at Early Intake		38,791.05	$38,791.05	
Contributions to Hetch Hetchy Water Supply for Bond Interest and Redemption and Construction	$19,708,995.52		19,708,995.52	
Contributions to Hetch Hetchy Water Supply for Reconstruction and Replacements	171,668.03		171,668.03	
California Railroad Commission Evaluation of P. G. & E. Company's San Francisco Properties	392,006.43			392,006.43
Miscellaneous Deductions from Surplus	820.35	11,854.49		12,674.84
	$20,273,490.33	$26,008,793.96	$19,919,454.60	$26,362,829.69
Surplus—June 30, 1941	$1,300,234.69	$32,836,308.13	0	$34,136,542.82

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

HETCH HETCHY PROJECT OPERATING FUND BALANCE SHEET

June 30, 1941

ASSETS

Cash:			
2000	Controller's Balance—Operating Fund	$77,187.52	
2040	Cash on Hand and in Transit	0	$77,187.57
Accounts Receivable and Estimated Revenue:			
2100	Taxes Receivable—Current Year	$14,315.58	
2170	Other Accounts Receivable	201,144.61	215,460.19
Deferred Charges and Suspense Debits:			
2465	Interdepartmental Work Order Authorizations		149,108.41
			$441,756.17

LIABILITIES

Encumbrances:			
2505 Contracts		$2,885.74	
2515 Purchase Orders		6,009.78	
2525 Service Orders and Orders for Work		950.00	
2535 Miscellaneous Encumbrances		1,529.77	
2565 Work Orders		82,340.23	$93,715.52
Encumbrances—Departmental Adjustments		$821.13	
Encumbrances—Accrued Pay Rolls		0	821.13
Inter-Fund Accounts Payable:			
2600 Temporary Loans—Reserve Fund		$250,000.00	
2655 Budget Transfers		0	
2690 Miscellaneous—San Francisco Water Department	$1,498.73		
Municipal Railway	603.09	2,101.82	252,101.82
Appropriations and Unappropriated Balances:			
2900 Unencumbered Balance of Appropriations		0	
2950 Unencumbered Balance of Appropriations—Suspense		$58,205.62	
2990 Unappropriated Balance of Funds		36,912.08	95,117.70
			$441,756.17

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

STATEMENT OF HETCH HETCHY PROJECT OPERATING FUND APPROPRIATIONS

Period Ending June 30, 1941

Appropriation Number	Expenditures	Encumbrances	Unencumbered Balance of Allotments	Total Allotted to Date	Unallotted Balance of Appropriation	Reserve	Supplemental Appropriations and Transfers	Original Appropriation	Departmental Encumbrance Adjustment	Actual Unencumbered Balance of Allotments
068.110.00	$30,306.00	.....	$5.00	$30,311.00	.....	$55.00	.....	$30,366.00	.....	$5.00
068.110.01	82,453.96	.....	114.78	82,568.74	.....	987.26	*$3,132.00*	86,688.00	.....	114.78
068.110.02	49,028.53	.....	290.00	49,318.53	.....	1,181.47	.....	50,500.00	.....	290.00
068.120.00	920.89	.....	79.11	1,000.00	.....	.....	.....	1,000.00	.....	79.11
068.120.01	2,653.56	.....	107.44	2,761.00	.....	.....	.....	2,761.00	.....	107.44
068.200.00	1,533.41	$370.18	596.41	2,500.00	.....	.....	.....	2,500.00	*$92.61*	689.02
068.200.01	8,255.58	778.98	1,615.44	10,650.00	.....	.....	4,960.00	5,690.00	*105.09*	1,720.53
068.200.01-1	2,873.73	5,056.00	95.27	8,025.00	.....	.....	.....	8,025.00	*224.03*	319.30
068.200.01-2	6,695.18	6,698.00	2.82	13,396.00	.....	.....	.....	13,396.00	*163.83*	166.65
068.200.01-3	6,103.63	6,136.50	32.87	12,273.00	.....	.....	.....	12,273.00	*40.90*	73.77
068.200.02	731.10	190.32	78.58	1,000.00	.....	.....	.....	1,000.00	*25.28*	103.86
068.212.01	4,161.76	8,130.30	5,758.94	18,051.00	.....	.....	*750.00*	18,801.00	*71.55*	5,830.49
068.212.02	27,566.18	28,116.82	.....	55,683.00	.....	.....	.....	55,683.00	*598.20*	598.20
068.212.03	8,110.07	8,440.93	.....	16,551.00	.....	.....	.....	16,551.00	*1.33*	1.33
068.212.04	3,506.15	4,090.50	584.35	8,181.00	.....	.....	.....	8,181.00	*3.40*	587.75
068.300.00	683.43	127.86	188.71	1,000.00	.....	.....	.....	1,000.00	.....	188.71
068.300.01	3,254.19	.....	245.81	3,500.00	.....	.....	.....	3,500.00	.....	245.81
068.300.02	925.97	23.36	50.67	1,000.00	.....	.....	.....	1,000.00	.....	50.67
068.350.01	4,050.30	.....	679.70	4,730.00	.....	.....	*270.00*	5,000.00	.....	679.70

068.399.01	.....	16.185.85	2,749.08	16,065.07	35.000.00	.....	.....	35,000.00	.....	*154.18*	16,219.25
068.400.00	.....	3,324.51	794.77	530.72	4,650.00	.....	.....	900.00	3,750.00	.....	530.72
068.400.01	.....	2.833.68	.....	253.32	3,087.00	.....	.....	.....	3,087.00	.....	253.32
068.640.01	.....	13,804.02	11,273.06	222.92	25,300.00	.....	.....	.....	25,300.00	.....	222.92
068.640.02	.....	.....	.....	.....	.....	$652.00	.....	*1,348.00*	2,000.00	.....	.....
068.801.00	.....	957.42	26.51	66.07	1,050.00	.....	.....	950.00	100.00	17.00	49.07
068.801.01	.....	82.10	.....	102.90	185.00	261.00	.....	*400.00*	846.00	.....	102.90
068.813.00	.....	.....	1,000.00	.....	1,000.00	.....	.....	200.00	800.00	*122.97*	122.97
068.813.01	.....	.....	500.00	.....	500.00	.....	.....	*250.00*	750.00	*261.08*	261.08
068.814.00	.....	539.60	.....	10.40	550.00	.....	.....	.....	550.00	.....	10.40
068.855.00	.....	30,000.00	.....	.....	30,000.00	.....	.....	.....	30,000.00	.....	.....
068.870.00	.....	9,124.95	.....	91.05	9,216.00	.....	.....	.....	9,216.00	.....	91.05
068.880.00	.....	90.00	.....	.....	90.00	.....	.....	.....	90.00	.....	.....
068.880.01	.....	30.00	.....	.....	30.00	.....	.....	30.00	.....	.....	.....
068.913.00	.....	.....	.....	.....	.....	.....	.....	*12,800.00*	12,800.00	.....	.....
068.913.01	.....	.....	.....	.....	.....	.....	.....	*25,321.00*	25,321.00	.....	.....
068.991.00	.....	86,748.86	3,696.62	15,441.77	105,887.25	.....	.....	105,887.25	.....	*529.75*	15,971.52
068.992.00	.....	32,478.18	2,315.25	8,427.73	43,221.16	.....	.....	43,221.16	.....	*198.09*	8,625.82
068.996.10	.....	.....	.....	2,652.66	2,652.66	.....	.....	2,652.66	.....	.....	2,652.66
068.996.11	.....	.....	.96	1,909.41	1,910.37	.....	.....	1,910.37	.....	.....	1,909.41
068.996.13	.....	.....	5.04	957.44	962.48	.....	.....	962.48	.....	559.06	398.38
068.996.14	.....	.....	.....	3,912.24	3,912.24	.....	.....	3,912.24	.....	646.02	3,266.22
068.996.15	.....	.....	11.12	32.24	43.36	.....	.....	43.36	.....	.....	32.24
		$440,012.79	$90,532.16	$61,201.84	$591,746.79	$913.00	$2,223.73	$156,358.52	$438,525.00	*$1,370.21*	$62,572.05

Italic figures denote loss and deficiency.

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

STATEMENT OF HETCH HETCHY PROJECT OPERATING FUND APPROPRIATIONS
(Continued)

Period Ending June 30, 1941

Appropriation Number	Expenditures	Encumbrances	Unencumbered Balance of Allotments	Total Allotted to Date	Unallotted Balance of Appropriation	Reserve	Supplemental Appropriations and Transfers	Original Appropriation	Departmental Encumbrance Adjustment	Actual Unencumbered Balance of Allotments
667.997.00	$15.89	.....	*$15.89*	.....	.....	.....	.....	.....	.....	*$15.89*
767.200.00	1.15	.....	.....	$1.15	.....	.....	$1.15	.....	.....	.....
967.000.00	.....	.....	887.69	887.69	.....	.....	887.69	.....	.....	887.69
967.200.00	569.12	.....	.....	569.12	.....	.....	569.12	.....	.....	.....
967.200.01	1,770.16	.....	.....	1,770.16	.....	.....	1,770.16	.....	.....	.....
967.200.02	6,017.59	.....	.....	6,017.59	.....	.....	6,017.59	.....	.....	.....
967.200.03	4,413.43	.....	.....	4,413.43	.....	.....	4,413.43	.....	.....	.....
967.604.00	5,791.04	.....	1,857.82	7,648.86	.....	.....	7,648.86	.....	1,613.43	244.39
967.604.01	.....	.....	773.01	773.01	.....	.....	773.01	.....	.....	773.01
967.801.00	5.00	.....	.....	5.00	.....	.....	5.00	.....	.....	.....
967.817.00	395.82	.....	.....	395.82	.....	.....	395.82	.....	.....	.....
668.500.08	.....	$950.00	.....	950.00	.....	.....	950.00	.....	.....	.....
968.000.00	.....	.....	687.93	687.93	.....	.....	687.93	.....	.....	687.93
968.200.00	293.52	.....	3.00	296.52	.....	.....	296.52	.....	.....	3.00
968.212.01	1,925.02	.....	.....	1,925.02	.....	.....	1,925.02	.....	.....	.....
968.212.02	30,121.12	.....	.....	30,121.12	.....	.....	30,121.12	.....	.....	.....
968.212.03	12,222.77	.....	.....	12,222.77	.....	.....	12,222.77	.....	.....	.....
968.269.00	2,351.79	15.20	577.01	2,944.00	.....	.....	2,944.00	.....	.....	577.01
968.300.00	1.03	.....	.....	1.03	.....	.....	1.03	.....	.....	.....
968.604.01	13,461.55	.....	72.65	13,534.20	.....	.....	13,534.20	.....	.....	72.65

968.604.03	1,917.85	2,218.16	7,795.99	11,932.00	.....	.....	11,932.00	.....	.....	7,795.99
968.801.00	30.90	.....	.....	30.90	.....	.....	30.90	.....	.....	.....
968.813.01	653.54	.....	.....	653.54	.....	.....	653.54	.....	.....	.....
968.817.00	780.50	.....	.....	780.50	.....	.....	780.50	.....	.....	.....
Total Sheet No. 2...	$82,738.79	$3,183.36	$12,639.21	$98,561.36	.....	.....	$98,561.36	.....	$1,613.43	$11,025.78
Total Sheet No. 1...	440,012.79	90,532.16	61,201.84	$591,746.79	$913.00	$2,223.73	$156,358.52	$438,525.00	*1,370.21*	62,572.05
Total	$522,751.58	$93,715.52	$73,841.05	$690,308.15	$913.00	$2,223.73	$254,919.88	$438,525.00	$243.22	$73,597.83
BUDGET TRANSFERS:										
968.269.00	$1,000.00	.....	.....	1,000.00	.....	.....	1,000.00	.....	.....	.....
068.231.00	140.85	.....	$159.15	300.00	.....	.....	.....	300.00	19.81	139.34
068.231.01	48.88	.....	11.12	60.00	.....	.....	10.00	50.00	3.62	7.50
068.800.01	.....	.....	.....	3,018,594.00)	.....	.....	.....	3,018,594.00)	.....	.....
068.800.02	5,088,667.50	.....	.....	2,070,073.50)	.....	.....	.....	2,070,073.50)	.....	.....
068.860.00	1,232.70	.....	22.30	1,255.00	.....	.....	.....	1,255.00	114.02	*91.72*
068.860.01	3,199.72	.....	468.28	3.668.00	.....	.....	.....	3,668.00	283.93	184.35
068.860.02	1,813.96	.....	1,056.04	2,870.00	.....	.....	.....	2,870.00	156.53	899.51
068.900.01-8	3,028.65	.....	246.35	3,275.00	.....	.....	.....	3,275.00	.....	246.35
068.900.03	3,121.37	.....	*171.37*	2,950.00	.....	.....	.....	2,950.00	.....	*171.37*
Total	$5,102,253.63	.....	$1,791.87	$5,104,045.50	.....	.....	$1,010.00	$5,103,035.50	$577.91	$1,213.96
Grand Total ...	$5,625,005.21	$93,715.52	$75,632.92	$5,794.353.65	$913.00	$2,223.73	$255,929.88	$5,541,560.50	821.13	74,811.79

Unallotted Balance of Appropriations..... 913.00

Reserve..... 2,223.73

Unencumbered Balance of Appropriations.....$77,948.52

Italic figures denote loss and deficiency.

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

STATEMENT OF ANNUAL BOND REDEMPTION BY FISCAL YEARS

(Cash Basis)

Redemption Dates	July 1	July 1	January 1	July 1	June 1	December 1	
Rate of Interest	Issue of 1909	Issue of 1910	Issue of 1925	Issue of 1928	Issue of 1932	Issue of 1933	Total
2¾%	.....	.....	.....	.....	$324,000.00	.....	$324,000.00
3%	.....	.....	.....	.....	194,000.00	.....	194,000.00
4%	.....	.....	.....	.....	280,000.00	$3,500,000.00	3,780,000.00
4½%	$600,000.00	$45,000,000.00	.....	$24,000,000.00	143,000.00	.....	69,743,000.00
5%	.....	.....	$10,000,000.00	.....	1,234,000.00	.....	11,234,000.00
5¾%	.....	.....	.....	.....	4,325,000.00	.....	4,325,000.00
Total Issued	$600,000.00	$45,000,000.00	$10,000,000.00	$24,000,000.00	$6,500,000.00	$3,500,000.00	$89,600,000.00
Bonds Retired as of July 1, 1940	$600,000.00	$21,000,000.00	$2,750,000.00	$1,800,000.00	$400,000.00	$1,050,000.00	$27,600,000.00
Annual Redemption Fiscal Year							
1940-41		$1,000,000.00	$250,000.00	$600,000.00	$200,000.00	$175,000.00	$2,225,000.00
1941-42		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1942-43		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1943-44		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1944-45		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1945-46		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1946-47		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1947-48		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00

1948-49		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1949-50		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1950-51		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1951-52		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1952-53		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1953-54		1,000,000.00	250,000.00	600,000.00	200,000.00	175,000.00	2,225,000.00
1954-55		1,000,000.00	250,000.00	600,000.00	200,000.00	.....	2,050,000.00
1955-56		1,000,000.00	250,000.00	600,000.00	200,000.00	.....	2,050,000.00
1956-57		1,000,000.00	250,000.00	600,000.00	200,000.00	.....	2,050,000.00
1957-58		1,000,000.00	250,000.00	600,000.00	200,000.00	.....	2,050,000.00
1958-59		1,000,000.00	250,000.00	600,000.00	200,000.00	.....	2,050,000.00
1959-60		1,000,000.00	250,000.00	600,000.00	200,000.00	.....	2,050,000.00
1960-61		1,000,000.00	250,000.00	600,000.00	200,000.00	.....	2,050,000.00
1961-62		1,000,000.00	250,000.00	600,000.00	200,000.00	.....	2,050,000.00
1962-63		1,000,000.00	250,000.00	600,000.00	200,000.00	.....	2,050,000.00
1963-64		1,000,000.00	250,000.00	600,000.00	200,000.00	.....	2,050,000.00
1964-65		.....	250,000.00	600,000.00	200,000.00	.....	1,050,000.00
1965-66		.....	250,000.00	600,000.00	200,000.00	.....	1,050,000.00
1966-67		.....	250,000.00	600,000.00	200,000.00	.....	1,050,000.00
1967-68		.....	250,000.00	600,000.00	200,000.00	.....	1,050,000.00
1968-69		.....	250,000.00	600,000.00	200,000.00	.....	1,050,000.00
1969-70		.....	.....	600,000.00	200,000.00	.....	800,000.00
1970-71		.....	.....	600,000.00	100,000.00	.....	700,000.00
1971-72		.....	.....	600,000.00	.....	.....	600,000.00
1972-73		.....	.....	600,000.00	.....	.....	600,000.00
1973-74		.....	.....	600,000.00	.....	.....	600,000.00
1974-75		.....	.....	600,000.00	.....	.....	600,000.00
1975-76		.....	.....	600,000.00	.....	.....	600,000.00
1976-77		.....	.....	600,000.00	.....	.....	600,000.00
Totals	$600,000.00	$45,000,000.00	$10,000,000.00	$24,000,000.00	$6,500,000.00	$3,500,000.00	$89,600,000.00

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

STATEMENT OF ANNUAL BOND INTEREST BY FISCAL YEARS

(Cash Basis)

Interest Maturity Dates	July 1 January 1	July 1 January 1	July 1 January 1	July 1 January 1	December 1 June 1	December 1 June 1	
Rate of Interest	Issue of 1909	1910	1925	1928	1932	1933	Total
2¾%	.....	.....	.....	.....	$324,000.00	.....	$324,000.00
3%	.....	.....	.....	.....	194,000.00	.....	194,000.00
4%	.....	.....	.....	.....	280,000.00	$3,500,000.00	3,780,000.00
4½%	$600,000.00	$45,000,000.00	.....	$24,000,000.00	143,000.00	.....	69,743,000.00
5%	.....	.....	$10,000,000.00	.....	1,234,000.00	.....	11,234,000.00
5¾%	.....	.....	.....	.....	4,325,000.00	.....	4,325,000.00
Total Issues	$600,000.00	$45,000,000.00	$10,000,000.00	$24,000,000.00	$6,500,000.00	$3,500,000.00	$89,600,000.00
Bond Interest Expense as of July 1, 1940	$72,900.00	$30,572,194.97	$5,899,277.69	$10,428,055.96	$2,597,235.07	$585,647.23	$50,155,310.92
Interest Fiscal Year							
1940-41		$1,080,000.00	$356,250.00	$999,000.00	$320,417.50	$94,500.00	$2,850,167.50
1941-42		1,035,000.00	343,750.00	972,000.00	309,440.00	87,500.00	2,747,690.00
1942-43		990,000.00	331,250.00	945,000.00	298,462.50	80,500.00	2,645,212.50
1943-44		945,000.00	318,750.00	918,000.00	287,485.00	73,500.00	2,542,735.00
1944-45		900,000.00	306,250.00	891,000.00	276,507.50	66,500.00	2,440,257.50
1945-46		855,000.00	293,750.00	864,000.00	265,530.00	59,500.00	2,337,780.00
1946-47		810,000.00	281,250.00	837,000.00	254,712.50	52,500.00	2,235,462.50

1947-48		765,000.00	268,750.00	810,000.00	243,895.00	45,500.00	2,133,145.00
1948-49		720,000.00	256,250.00	783,000.00	233,077.50	38,500.00	2,030,827.50
1949-50		675,000.00	243,750.00	756,000.00	222,260.00	31,500.00	1,928,510.00
1950-51		630,000.00	231,250.00	729,000.00	211,442.50	24,500.00	1,826,192.50
1951-52		585,000.00	218,750.00	702,000.00	200,625.00	17,500.00	1,723,875.00
1952-53		540,000.00	206,250.00	675,000.00	189,872.50	10,500.00	1,621,622.50
1953-54		495,000.00	193,750.00	648,000.00	179,120.00	3,500.00	1,519,370.00
1954-55		450,000.00	181,250.00	621,000.00	168,367.50	.....	1,420,617.50
1955-56		405,000.00	168,750.00	594,000.00	157,615.00	.....	1,325,365.00
1956-57		360,000.00	156,250.00	567,000.00	146,862.50	.....	1,230,112.50
1957-58		315,000.00	143,750.00	540,000.00	136,110.00	.....	1,134,860.00
1958-59		270,000.00	131,250.00	513,000.00	125,360.00	.....	1,039,610.00
1959-60		225,000.00	118,750.00	486,000.00	114,610.00	.....	944,360.00
1960-61		180,000.00	106,250.00	459,000.00	103,860.00	.....	849,110.00
1961-62		135,000.00	93,750.00	432,000.00	93,110.00	.....	753,860.00
1962-63		90,000.00	81,250.00	405,000.00	82,360.00	.....	658,610.00
1963-64		45,000.00	68,750.00	378,000.00	71,610.00	.....	563,360.00
1964-65		.....	56,250.00	351,000.00	61,377.50	.....	468,627.50
1965-66		.....	43,750.00	324,000.00	51,895.00	.....	419,645.00
1966-67		.....	31,250.00	297,000.00	42,412.50	.....	370,662.50
1967-68		.....	18,750.00	270,000.00	32,930.00	.....	321,680.00
1968-69		.....	6,250.00	243,000.00	23,447.50	.....	272,697.50
1969-70		.....	.....	216,000.00	13,965.00	.....	229,965.00
1970-71		.....	.....	189,000.00	4,482.50	.....	193,482.50
1971-72		.....	.....	162,000.00	.....	.....	162,000.00
1972-73		.....	.....	135,000.00	.....	.....	135,000.00
1973-74		.....	.....	108,000.00	.....	.....	108,000.00
1974-75		.....	.....	81,000.00	.....	.....	81,000.00
1975-76		.....	.....	54,000.00	.....	.....	54,000.00
1976-77		.....	.....	27,000.00	.....	.....	27,000.00
Totals	$72,900.00	$44,072,194.97	$11,155,527.69	$29,409,055.96	$7,520,457.57	$1,271,647.23	$93,501,783.42

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

AUTOMOTIVE EQUIPMENT OPERATIONS—COSTS AND CREDITS

Forty-Fve Month Period—October 1, 1937, to June 30, 1941

Acct. No.	Car No.	Make and Model	License No.	Mileage	Cost of Operation	Cost Per Mile	Operating Credits	Excess of Costs Over Credits	Excess of Credits Over Costs	Revised Rate Aug. 1, 1941
7050	0	1929 Ford Coupe	20 742	8,816	$153.70	$0.01743	$300.19	.....	$146.49	$0.02
7052	1	1937 Dodge Coupe	20 160	47,005	1,210.84	.02575	1,650.08	.....	439.24	.02
7052	2-A	1941 Chevrolet Coupe	62 136	6,043	119.44	.01976	142.90	.....	23.46	.02
7051	3-A	1941 Chevrolet Carryall	62 142	4,311	126.15	.02926	154.92	.....	28.77	.03
7051	4-A	1940 Chevrolet Carryall	60 825	13,727	560.29	.04081	751.20	.....	190.91	..
7051	4-B	1941 Chevrolet ½ Ton Canopy Express	.....	....	71.46	.....	.....	$71.46	.....	.03
7051	5	1937 International Pickup	20 164	24,995	2,286.49	.09147	1,969.24	317.25	.....	.10
7051	6-A	1941 Chevrolet Pickup ½ Ton	62 141	2,038	30.59	.01501	52.11	.....	21.52	.02
7051	7	1937 International Pickup	20 166	23,554	1,292.71	.05488	1,056.33	236.38	.....	.06
7051	8	1933 Plymouth Coach	20 167	7,134	571.03	.08004	484.96	86.07	.....	.09
7051	9	1937 Chevrolet Sport Sedan	20 168	42,995	1,514.73	.03523	1,546.61	.....	31.88	.04
7051	10	1937 Ford Sedan	23 039	41,204	1,723.57	.04183	1,636.73	86.84	.....	.05
7050	11-A	1940 Ford Pickup ½ Ton	20 289	42,695	769.99	.01803	853.90	.....	83.91	.02
7050	12-B	1941 Chevrolet Coupe	62 008	13,229	319.76	.02417	264.58	55.18	.....	.03
7050	13-A	1941 Ford Pickup ½ Ton	61 991	8,117	138.04	.01700	215.23	.....	77.19	.02
7051	14	1935 Ford Pickup ½ Ton	20 170	23,441	1,279.36	.05457	1,303.09	.....	23.73	.06
7050	16	1938 Packard Sedan	32 283	53,819	2,894.64	.05378	2,762.55	132.09	.....	.07
7050	17	1937 Ford Truck	20 744	48,317	2,700.12	.05588	3,020.47	.....	320.35	.06
7051	18	1937 International Pickup	20 171	33,754	1,723.57	.05106	1,636.73	86.84	.....	.06
7051	19	White Railroad Bus	.....	5,617	991.99	.17660	1,512.70	.....	520.71	.18
7051	21	White Railroad Bus	.....	330	37.25	.11287	38.94	.....	1.69	.12

7051	29	1922	Buda Railway Speeder	.....	1,150	134.43	.11689	63.77	70.66	.....	.12
7051	30	1922	Buda Railway Speeder	.....	743	54.24	.07300	60.14	.....	5.90	.08
7050	31	1937	Ford Coupe	20 745	75,242	1,462.38	.01943	2,153.16	.....	690.78	.02
7051	103-A	1941	Chevrolet Pickup ¾ Ton	62 140	5,096	103.09	.02022	244.32	.....	141.23	.03
7051	106	1920	White Truck ¾ Ton	20 173	816	399.13	.48913	158.40	240.73	.....	.50
7050	108	1920	White Truck 5 Ton	20 746	3,067	450.66	.14887	833.70	.....	383.04	.15
7051	109	1918	White Stake Truck ¾ Ton	20 174	1,811	355.25	.19616	336.56	18.69	.....	.20
7051	112	1938	Ford Dump Truck 1½ Ton	25 720	19,319	1,604.91	.08307	1,918.28	.....	313.37	.09
7051	114	1937	Chevrolet Dump Truck	20 175	18,979	1,603.32	.08447	1,695.82	.....	92.50	.09
7050	120	1924	White Truck 2 Ton	20 747	3,052	545.89	.17886	577.98	.....	32.09	.18
7051	121	1924	White Winch Truck 2 Ton	20 176	7,054	1,199.22	.17000	1,336.80	.....	137.58	.18
7051	200	1936	FWD Truck 4/5 Ton	20 177	15,119	2,773.70	.18345	2,952.19	.....	178.49	.19
7052	201	1938	FWD Line Truck 2½-3 Ton	25 665	13,911	1,755.23	.12617	2,426.02	.....	670.79	.13
7052	202	1936	FWD Line Truck 1½ Ton	20 178	16,616	3,742.58	.22524	3,043.13	699.45	.....	.23
7052	206	1933	Dodge Truck 1½ Ton	20 179	9,232	826.33	.08950	1,001.22	.....	174.89	.09
7050	208-A	1940	Ford Pickup ½ Ton	60 988	14,873	192.44	.01293	285.26	.....	92.82	.02
7050	209-A	1940	Ford Tudor Sedan	19 834	25,636	460.03	.01794	721.33	.....	261.30	.02
7050	210	1941	Chevrolet Suburban Carryall	.....	....	5.84	.....	.....	5.84	.....	.03
7051	1160		Caterpillar Tractor	.....	2,359½ hrs.	2,097.35	.88889 hr.	2,729.82	.....	632.47	.90 hr.
7051	1170		Plymouth Locomotive 8 Ton	.....	10,192	2,103.93	.20643	3,333.05	.....	1,229.12	.21
7051	1171		Plymouth Locomotive 20 Ton	.....	4,129	3,305.88	.80065	2,022.14	1,283.74	.....	.81
7051	1172		P. & H. Shovel	.....	361½ hrs.	745.35	2.06182 hr.	808.80	.....	63.45	2.07 hr.
7051	1173		Rotary Snow Plow	.....	305	1,135.24	3.72209	746.40	388.84	.....	3.73
7051	1174		Caterpillar Tractor	.....	1,798½ hrs.	3,081.26	1.71323 hr.	3,120.59	.....	39.33	1.72 hr.
7051	1176		Plymouth Locomotive	.....	732	751.89	1.02717	450.69	301.20	.....	1.03
						$51,405.29		$54,373.03	$4,081.26	$7,049.00	
								$51,405.29		4,081.26	
								$2,967.74		$2,967.74	

EXHIBIT A

HETCH HETCHY POWER DIVISION

PROPRIETARY BALANCE SHEET—JUNE 30, 1941

ASSETS AND OTHER DEBITS

Utility Plant		
Electric Plant:		
In Service, Hydraulic Production Plant (Schedule No. 1)	$8,578,340.53	
In Service, Transmission Plant (Schedule No. 1)	2,657,275.78	
In Service, General Plant (Schedule No. 1)	1,152,063.38	$12,387,679.69
Construction Work in Progress (Schedule No. 1)		276.47
		$12,387,956.16
Less Reserve for Depreciation Electric Plant (Schedule No. 1)		4,158,335.89
Remainder, Depreciated Value		$8,229,620.27
Current and Accrued Assets		
Cash on Deposit with Treasurer:		
Reconstruction and Replacement Fund (Schedule No. 2)		$145,719.47
Working Funds:		
Hetch Hetchy Power Revolving Fund		3,000.00
Accounts Receivable:		
Pacific Gas & Electric Co.	$200,152.20	
Other Consumers	453.57	200,605.77
Receivable from Municipality:		
Interfund Accounts General City and County (Schedule No. 3)		
Recreation Department		514.59
Material and Supplies		17,845.31
Total Current and Accrued Assets		$367,685.14
Deferred Debits		
Cash Withheld by Hetch Hetchy Water Supply for Work Encumbered But Not Yet Performed		$35.83
Suspense Debits—Sales Tax (Contra)		15.82
Commitments—Contra		4,245.27
Total Deferred Debits		$4,296.92
Total Assets and Other Debits		$8,601,602.33

LIABILITIES AND OTHER CREDITS

Long-Term Debt		
Bonds, Municipality:		
Due Dec. 1, 1941 to July 1, 1977		$7,121,700.00
Current and Accrued Liabilities		
Accounts Payable:		
Contracts, Purchase Orders, Etc., for Material and Services Rendered	$3,533.47	
Commitments—Contra	4,245.27	$7,778.74
Payable to Municipality:		
Inter-Fund Accounts—P. S. E. (Schedule No. 3)		
San Francisco Water Department	323.83	
Hetch Hetchy Water Supply	171,261.70	171,585.33
Interfund Accounts—General City and County (Schedule No. 3)		
Employees' Retirement System	$283.93	
General Fund—Lighting of Public Streets and Buildings	3.62	287.55
Total Current and Accrued Liabilities		$179,651.82
Deferred Credits		
Suspense Credits:		
Sales Tax (Contra)		$15.82
Total Deferred Credits		$15.82
Total Liabilities		$7,301,367.64
Surplus		
Surplus (Exhibit C)		$1,300,234.69
Total Liabilities and Other Credits		$8,601,602.33

HETCH HETCHY POWER DIVISION

June 30, 1941

EXHIBIT B

COMPARATIVE INCOME STATEMENT

Fiscal Year Ended June 30, 1940, June 30, 1941, and Period August 16, 1925, to June 30, 1941

Utility Operating Income	Fiscal Year Ended June 30, 1941	Fiscal Year Ended June 30, 1940	Period Aug. 16, 1925, to June 30, 1941
Operating Revenues:			
Power Sales:			
Moccasin Powerhouse			
General Consumers, P. G. & E. Company	$8,583,046.05	$8,636,265.93	$126,746,749.55
Less Distribution Commission	6,271,202.57	6,310,087.70	92,607,512.52
	$2,311,843.48	$2,326,178.23	$34,139,237.03
Construction, Operation, and Miscellaneous	154.43	486.96	611,551.84
	$2,311,997.91	$2,326,665.19	$34,750,788.87
Early Intake Powerhouse:			
General Consumers, P. G. & E. Company	$328,814.99	$308,455.36	$3,464,712.30
Less Distribution Commission	240,248.68	225,372.92	2,531,492.05
	$88,566.31	$83,082.44	$933,220.25
Construction, Operation, and Miscellaneous	3,005.44	2,675.62	91,767,95
	$91,571.75	$85,758.06	$1,024,988.20
Total Power Sales	$2,403,569.66	$2,412,423.25	$35,775,777.07
Operating Revenue Deductions:			
Operating Expenses:			
Production Expenses	$98,694.83	$143,134.43	$2,486,017.05
Purchase of Water for Power	735,474.00	0	735,474.00
Transmission Expenses	28,748.59	29,148.78	424,238.49
Administrative and General Expenses	29,026.71	65,873.09	835,350.41
Total Operating Expenses	$891,944.13	$238,156.30	$4,481,079.95
Depreciation Expenses	284,768.50	304,842.78	4,804,912.54
Taxes	0	4,318.07	61,186.46
Rents (Power Proportion, Raker Act)	0	15,000.00	228,500.00
Total Operating Revenue Deductions	$1,176,712.63	$562,317.15	$9,575,678.95
Net Operating Revenues	$1,226,857.03	$1,850,106.10	$26,200,098.12
Other Income			
Miscellaneous Non-Operating Income	$3,867.12	$11,215.03	$471,868.33
Gross Income	$1,230,724.15	$1,861,321.13	$26,671,966.45
Income Deductions			
Interest on Long-Term Debt	$330,619.49	$342,528.86	$5,122,849.27
Valuation of Property	0	0	4,932.12
Preliminary Investigations and Surveys, Distribution of Power by City	0	0	13,659.17
Total Income Deductions	$330,619.49	$342,528.86	$5,141,440.56
Net Income Transferred to Surplus	$900,104.66	$1,518,792.27	$21,530,525.89
Comparative Charges for Federal and State Taxes as Required by Section No. 64 of Charter	$219,090.79	$369,863.00	

EXHIBIT C

SURPLUS ACCOUNT

For Twelve Months Ended June 30, 1941

Surplus—June 30, 1940		$1,481,243.16
Add:		
Net Income for 12 Months Ended June 30, 1941		900,104.66
		$2,381,347.82
Deduct:		
Adjustment of Depreciation Expense Prior to June 30, 1940	$994.55	
Contributions to Hetch Hetchy Water Supply for Reconstruction and Replacements (1940-1941)	159,001.58	
Contributions to Hetch Hetchy Water Supply for Bond Interest and Redemption (1940-1941)	871,117.00	
Additional Contributions to Hetch Hetchy Water Supply for Bond Interest and Redemption (1940-1941)	50,000.00	1,081,113.13
Surplus—June 30, 1941		$1,300,234.69

COMPOSITION OF SURPLUS

June 30, 1941

Additions:		
Net Income, August 16, 1925, to June 30, 1941	$21,530,525.89	
Contributions from San Francisco Water Department	1,228.59	
Contributions from 1932 Hetch Hetchy Bond Fund for Four New Cottages at Early Intake	38,791.05	
Miscellaneous Additions to Surplus	3,179.49	$21,573,725.02
Deductions:		
Contributions to Hetch Hetchy Water Supply for Bond Interest and Bond Redemption	$19,708,995.52	
Contributions to Hetch Hetchy Water Supply for Reconstruction and Replacements	171,668.03	
California Railroad Commission Evaluation of P. G. & E. Company's San Francisco Properties	392,006.43	
Miscellaneous Deductions from Surplus	820.35	20,273,490.33
Surplus—June 30, 1941		$1,300,234.69

EXHIBIT D

HETCH HETCHY POWER DIVISION

DETAIL OF OPERATING EXPENSE—JUNE 30, 1941

		July 1, 1940 to June 30, 1941	July 1, 1939 to June 30, 1940
	PRODUCTION		
	OPERATION		
6000	Superintendence	$8,404.08	$9,317.48
6005	Hydraulic Labor	1,800.00	12,762.39
6010	Station Labor	44,510.11	44,873.83
6015	Miscellaneous	7,134.86	5,997.15
6020	Supplies and Expenses	15,282.75	15,666.11
6030	Contributions to Retirement System	2,730.86	2,969.01
		$79,862.66	$91,585.97
6040	Purchase of Water for Power	$735,474.00	0
	MAINTENANCE		
6050	Structures	$12,946.83	$22,529.30
6055	Reservoirs, Dams and Intakes		6,076.31
6060	Waterways		1,045.62
6065	Forebays, Penstocks and Tailraces	1,808.55	1,771.00
6070	Roads and Trails		5,958.15
6075	Hydraulic Power Plant Equipment	3,609.30	3,563.67
6080	Miscellaneous Power Plant Equipment	467.49	2,465.70
		$18,832.17	$43,409.75

(Continued)

		July 1, 1940 to June 30, 1941	July 1, 1939 to June 30, 1940
	TRANSMISSION		
	OPERATION		
6200	Superintendence	$3,075.83	$2,834.55
6215	Transmission Lines—Labor	10,206.86	8,790.00
6220	Transmission Lines—Supplies and Expenses	1,041.67	1,203.64
6225	Contributions to Retirement System	563.47	481.32
		$14,887.83	$13,309.51
	MAINTENANCE		
6250	Transmission Structures	$128.73	$446.62
6255	Substation Equipment	3,520.22	2,586.12
6260	Towers and Fixtures	18.87	355.63
6265	Tower Line Conductors	2,831.63	2,251.45
6270	Poles and Fixtures	6,542.02	6,657.29
6275	Pole Line Conductors	290.92	825.88
6280	Roads and Trails		1,219.55
6285	Miscellaneous	498.37	1,466.73
		$13,830.76	$15,809.27
	MISCELLANEOUS		
6290	Transmission Rents	$30.00	$30.00
	Total Transmission Expenses	$28,748.59	$29,148.78

EXHIBIT D

HETCH HETCHY POWER DIVISION

DETAIL OF OPERATING EXPENSE—JUNE 30, 1941—Continued

		July 1, 1940 to June 30, 1941	July 1, 1939 to June 30, 1940
	MISCELLANEOUS		
6092	Communication System		$7,187.14
6094	Hydrography		951.57
			$8,138.71
	Total Production Expenses	$834,168.83	$143,134.43

		July 1, 1940 to June 30, 1941	July 1, 1939 to June 30, 1940
	ADMINISTRATIVE AND GENERAL		
8000	Salaries and Wages	$4,848.73	$9,021.02
8005	Contributions to Retirement System	189.32	564.93
8010	Services of Other Departments	14,671.08	38,932.84
8015	Professional Services	1,528.65	1,513.43
8020	Stationery, Offie Supplies and Postage	109.05	167.62
8021	Sundry Office Expense	45.17	23.45
8025	Telephone and Telegraph	198.12	150.40
8030	Traveling and Other Expenses	396.89	376.78
8040	Injuries and Damages	101.62	111.40
8051	Automobile Insurance Premiums	238.92	395.82
8061	Raker Act Litigation	6,499.16	10,221.33
8062	Williams Litigation	200.00	13.75
8063	Meridian, Ltd., Litigation		2,893.42
8064	Legal Expense—Transbay Construction Company Suit		56.00
8095	Miscellaneous		38.57
8096	Maintenance of Automotive Equipment		1,392.33
	Total Administrative and General Expenses	$29,026.71	$65,873.09
	FIXED CHARGES		
9000	Interest Expense	$330,619.49	$342,528.86
9010	Rents (General)		15,000.00
9020	Taxes (Actually Paid)		4,318.07
9050	Depreciation Expense	234,768.50	304,842.78
	Total Fixed Charges	$615,387.99	$666,689.71

EXHIBIT E

HETCH HETCHY POWER DIVISION

COMPARISON OF ACTUAL REVENUES AND EXPENSES WITH BUDGET ESTIMATES

FISCAL YEAR 1940-1941

	Fiscal Year 1940-41	Month of June, 1941			Twelve Months to June 30, 1941		
	Budget and Modifications	Budget and Modifications	Expenses Revenues Accruals	Increase or Decrease	Budget and Modifications	Expenses Revenues Accruals	Increase or *Decrease*
PRODUCTION EXPENSES							
Electric Generation—Hydraulic Power							
Operation	$68,275.00	$5,689.62	$7,216.68	*$1,527.06*	$68,275.00	$79,862.66	*$11,587.66*
Repairs and Maintenance	19,721.00	1,643.38	2,177.45	*534.07*	19,721.00	18,832.17	888.83
Purchase of Water for Power	735,474.00	61,289.50	61,289.50		735,474.00	735,474.00	
Total Production Expenses	$823,470.00	$68,622.50	$70,683.63	*$2,061.13*	$823,470.00	$834,168.83	*$10,698.83*
TRANSMISSION EXPENSES							
Operation	$22,851.00	$1,904.25	$1,319.05	$585.20	$22,851.00	$14,917.83	$7,933.17
Repairs and Maintenance	13,973.00	1,164.38	1,307.85	*143.47*	13,973.00	13,830.76	142.24
Total Transmission Expenses	$36,824.00	$3,068.63	$2,626.90	$441.73	$36,824.00	$28,748.59	$8,075.41
Administrative and General	$35,860.00	$2,988.37	$1,302.33	$1,686.04	$35,860.00	$29,026.71	$6,833.29
Total Operating Expense, Exclusive of Depreciation	$896,154.00	$74,679.50	$74,612.86	$66.64	$896,154.00	$891,944.13	$4,209.87
Interest on Long-Term Debt (Power Proportion)	330,619.00	27,551.62	27,551.62		330,619.00	330,619.49	*.49*
Bond Redemption (Power Proportion)	258,100.00	21,508.34	21,508.34		258,100.00	258,100.00	
Current Reconstruction and Replacements	26,121.00	2,176.75	342.78	1,833.97	26,121.00	13,447.66	12,673.34
Buildings, Structures and Improvements	2,287.00	190.51	0	190.51	2,287.00	2,315.61	*28.61*
Contributions to Hetch Hetchy Water Supply for Current Reconstruction and Replacements	16,550.00	1,379.17	1,379.17		16,550.00	16,550.00	
Contributions to Hetch Hetchy Water Supply for Bond Interest and Redemption	921,117.00	76,759.75	76,759.75		921,117.00	921,117.00	
Total Hetch Hetchy Power Budget Estimate 1940-1941	$2,450,948.00	$204,245.64	$202,154.52	$2,091.12	$2,450,948.00	$2,434,093.89	$16,854.11
RECEIPTS							
Revenue:							
Sale of Power	$2,390,000.00	$199,166.63	$200,564.33	$1,397.70	$2,390,000.00	$2,403,569.66	$13,569.66
Other Income	10,000.00	833.37	466.92	*366.45*	10,000.00	3,867.12	*6,132.88*
Total Revenue	$2,400,000.00	$200,000.00	$201,031.25	$1,031.25	$2,400,000.00	$2,407,436.78	$7,436.78
Receipts from Surplus	50,000.00	4,166.64	4,166.64		50,000.00	50,000.00	
Total Receipts	$2,450,000.00	$204,166.64	$205,197.89	$1,031.25	$2,450,000.00	$2,457,436.78	$7,436.78
Net Saving Over Budget Estimate				$3,122.37			$24,290.89

Italic figures denote loss and deficiency.

SCHEDULE No. 1

HETCH HETCHY POWER DIVISION

ELECTRIC PLANT IN SERVICE

JUNE 30, 1941

		Balance June 30, 1940	Gross Additions July 1, 1940 June 30, 1941	Retirements July 1, 1939 June 30, 1940	Adjustments July 1, 1940 June 30, 1941	Balance June 30, 1941	Accrued Depreciation June 30, 1941
1001-A	HYDRAULIC PRODUCTION PLANT						
320	Land and Land Rights	$53,903.00	.....	.....	.....	$53,903.00	0
321	Structures and Improvements	842,351.00	.....	.....	.....	842,351.00	$233,497.52
322	Reservoirs, Dams, and Waterways	6,609,814.25	.....	.....	.....	6,609,814.25	1,733,249.53
323	Waterwheels, Turbines and Generators	904,753.00	.....	.....	.....	904,753.00	447,017.55
324	Accessory Electric Equipment	128,546.00	.....	.....	.....	128,546.00	79,715.93
325	Miscellaneous Power Plant Equipment	17,352.00	$2,825.95	$1,407.67	.....	18,770.28	10,585.08
326	Roads, Railroads and Bridges	20,203.00	.....	.....	.....	20,203.00	0
		$8,576,922.25	$2,825.95	$1,407.67	0	$8,578,340.53	$2,504,065.61
1001-B	TRANSMISSION PLANT						
340	Land and Land Rights	$49,677.00	.....	.....	.....	$49,677.00	0
341	Clearing Lands and Rights of Way	38,212.00	.....	.....	.....	38,212.00	0
342	Structures and Improvements	18,880.00	.....	.....	.....	18,880.00	$7,069.52
343	Station Equipment	578,543.20	$1,028.35	$1,028.35	.....	578,543.20	268,813.65
344	Towers and Fixtures	872,767.00	.....	.....	.....	872,767.00	342,088.92
345	Poles and Fixtures	39,232.00	1,442.12	1,442.12	.....	39,232.00	26,154.41

346	Overhead Conductors and Devices	1,058,192.58	3,752.83	3,752.83	.....	1,058,192.58	710,432.06
347	Underground Conduit	657.00	.....	.....	.....	657.00	420.84
348	Underground Conductors and Devices	1,115.00	.....	.....	.....	1,115.00	451.45
349	Roads and Trails	0	.....	.....	.....	0	0
		$2,657,275.78	$6,223.30	$6,223.30	0	$2,657,275.78	$1,355,430.85
1001-C	GENERAL PLANT						
370	Land and Land Rights	$1,128.00	.....	.....	.....	$1,128.00	0
371	Structures and Improvements	723,126.54	$2,361.90	$1,026.53	.....	724,461.91	$259,391.55
372	Office Furniture and Equipment	3,605.00	.....	120.00	.....	3,485.00	3,485.00
373	Transportation Equipment	14,168.16	818.07	1,604.00	.....	13,382.23	7,550.91
375	Shop Equipment	30,076.00	831.45	.....	.....	30,907.45	16,139.80
377	Tools and Work Equipment	4,689.00	.....	.....	.....	4,689.00	3,803.15
378	Communication Equipment	0	.....	.....	.....	0	0
379	Miscellaneous Equipment	10,603.95	.....	.....	.....	10,603.95	8,469.02
395	Unclassified	363,405.84	.....	.....	.....	363,405.84	0
		$1,150,802.49	$4,011.42	$2,750.53	0	$1,152,063.38	$298,839.43
		$12,385,000.52	$13,060.67	$10,381.50	0	$12,387,679.69	$4,158,335.89
2000	CONSTRUCTION WORK IN PROGRESS						
	67-74 Damtender's Cottage, at Moccasin					$276.47	
	See Schedule		1-A	1-A			1-B

SCHEDULE No. 1-A

HETCH HETCHY POWER DIVISION

Gross Additions—July 1, 1940, to June 30, 1941

1001-A	HYDRAULIC PRODUCTION PLANT		
	325 MISCELLANEOUS POWER PLANT EQUIPMENT		
	One No. 5502982, Model No. 64-21 De Laval Centrifugal Oil Purifier with one Viking Model XHD ¾" Iron Rotary Pump, Direct Connected to ½-HP, 3-Phase, 440-Volt Motor at Moccasin Power House	$1,484.16	
	One Block and Decker 10" Electric Bench Grinder, 440-Volt, 3-Phase, 60-Cycle, Equipped with Ball Bearings and 2 Grinders, at Moccasin Power House	86.74	
	Eleven No. 22998-15364, No. CO 5 Carbon Dioxide Units, at Moccasin Power House	660.31	
	One Welder SAE 300, Portable S-6042, for 3-Phase, 60-Cycle, 440-Volt, Serial No. 45377, at Moccasin Power House	488.55	
	One 14' Skiff, 52" Beam, 18" Deep with 2 Pairs Galvanized Rowlocks, at Moccasin Power House	106.19	$2,825.95
1001-B	TRANSMISSION PLANT		
	343 STATION EQUIPMENT		
	One High Volt Oil-Filled Condenser Type Bushing for Use on G11-154 Oil Circuit Breaker		1,028.35
	345 POLES AND FIXTURES		
	Poles, Cross Arms, Etc., in 22-KV Transmission Line (1940-41)		1,442.12
	346 OVERHEAD CONDUCTORS AND DEVICES		
	Porcelain Insulator Units in 110-KV Transmission Line		3,752.83
1001-C	GENERAL PLANT		
	371 STRUCTURES AND IMPROVEMENTS		
	New Water Line, Early Intake	$482.71	
	New Septic Tank, Early Intake Cookhouse	285.02	
	New Wooden Porch, Cottage No. 19, Moccasin	158.80	
	New Heating System, Moccasin Shop, Complete with 8 Switches, 1 Contactor, and 4 Wesix Electric Heaters with Thermostat	1,435.37	2,361.90
	373 TRANSPORTATION EQUIPMENT		
	One New 1941 Chevrolet Master De Luxe Coupe, Motor No. AA288451, Serial No. 6AG12-8781, Equipment No. 2-A		818.07
	375 SHOP EQUIPMENT		
	One No. 777 Norman Perfecto Boring Bar, Complete, Moccasin Shop	$354.90	
	One No. E-426 Allen Motor Tuner, Moccasin Shop	164.77	
	One 9'x4½' South Bend Lathe, Model A W/3005W3, Jaw Chuck 810 W-Dial Indicator, Serial No. 96718, Moccasin Shop	311.78	831.45
	Total Gross Additions		$13,060.67

Retirements—July 1, 1940, to June 30, 1941

1001-A	HYDRAULIC PRODUCTION PLANT		
	325 MISCELLANEOUS POWER PLANT EQUIPMENT		
	Retire One Electric Bench Grinder, Moccasin Power House	$86.74	
	Retire Eleven Old Fire Extinguishers, Moccasin Power House	372.80	
	Retire One G. E. Arc Welder, Type WD-12, Motor Driven, 250-Amp., Moccasin Power House	849.13	
	Retire One Old Skiff, Moccasin Power House	99.00	$1,407.67
1001-B	TRANSMISSION PLANT		
	343 STATION EQUIPMENT		
	Retire One Old High-Voltage Condensor Type Bushing for G11-154 Oil Circuit Breaker		1,028.35
	345 POLES AND FIXTURES		
	Retire Poles, Cross Arms, Etc., in 22-KV Transmission Line (1940-41)		1,442.12
	346 OVERHEAD CONDUCTORS AND DEVICES		
	Retire Old Porcelain Insulator Units in 110-KV Transmission Line		3,752.83
1001-C	GENERAL PLANT		
	371 STRUCTURES AND IMPROVEMENTS		
	Retire Old Water Line, Early Intake	$482.71	
	Retire Old Septic Tank, Early Intake Cookhouse	285.02	
	Retire Old Wooden Porch, Cottage No. 19, Moccasin	158.80	
	Retire Old Heating Plant, Moccasin Shop	100.00	1,026.53
	372 OFFICE FURNITURE AND EQUIPMENT		
	Retire One Old Oak Filing Cabinet 6¾'x5½'x14", at Moccasin Power House	$25.00	
	Retire One Old Oak Filing Cabinet 12'x6½'x12", at Moccasin Power House	40.00	
	Retire One Old Steel Filing Cabinet, 5 Drawers, Mfg. No. 75-405, at Moccasin Office	55.00	120.00
	373 TRANSPORTATION EQUIPMENT		
	Retire One 1937 Graham Coupe, Engine No. 225841, Serial No. 221384, Equipment No. 2	$979.00	
	Retire Dodge ½-Ton Truck, Serial No. 9201143 (1933), Engine No. TDP 3097, Transferred to Hetch Hetchy Water Supply	625.00	1,604.00
	Total Retirements		$10,381.50

SCHEDULE No. 1-B

HETCH HETCHY POWER DIVISION

RESERVE FOR DEPRECIATION ELECTRIC PLANT

June 30, 1941

Description	1 Value in Service	2 Cost of Removal	3 Salvage	4 Net Value Transferred to Other Departments	5 Net Debit to Reserve	6 Credits to Reserve	7 Credit Balance
Balance of Reserve—June 30, 1940 (Credit)							$3,885,386.66
Amount Credited to Reserve and Charged to Expense, Fiscal Year 1940-1941						$284,768.50	
Add: Depreciation Expense Adjustments Prior Year						994.55	
Retirement of:							
One 1937 Graham Coupe, Engine No. 225841, Serial No. 221384, Equipment No. 2	$979.00		$300.00		$679.00		
One High Voltage Condenser Type Bushing for G11-154 Oil Circuit Breaker	1,028.35				1,028.35		
One Electric Bench Grinder, Moccasin Power House	86.74				86.74		
One Water Line, Early Intake	482.71	$480.65			963.36		
One Septic Tank, Early Intake Cookhouse	285.02	196.22			481.24		
Eleven Old Fire Extinguishers, Moccasin Power House	372.80				372.80		
One G. E. Arc Welder, Type W. D. 12, Motor Driven, 250-Amp.	849.13		98.75		750.38		
One Dodge ½-Ton Truck, Serial No. 9201143 (1933), Engine No. TDP 3097, Transferred to Hetch Hetchy Water Supply	625.00			$100.00	525.00		
One Oak Filing Cabinet, 6¾'x5½'x14", at Moccasin Power House	25.00				25.00		
One Oak Filing Cabinet, 12'x6½'x12", at Moccasin Power House	40.00				40.00		
One Steel Filing Cabinet, 5 Drawers, No. 75-405, at Moccasin Office	55.00				55.00		
Poles, Cross Arms, Etc., in 22-KV Transmission Line (1940-1941)	1,442.12	1,039.39			2,481.51		
Old Wooden Porch, Cottage No. 19, at Moccasin	158.80	121.56			280.36		
Old Porcelain Insulator Units in 22-KV Transmission Line	3,752.83	1,093.25			4,846.08		
Old Heating Plant, Moccasin Shop	100.00				100.00		
Old Skiff, Moccasin Power House	99.00				99.00		
Total Debits and Credits to Reserve, Fiscal Year 1940-1941	$10,381.50	$2,931.07	$398.75	$100.00	$12,813.82	$285,763.05	272,949.23
Balance of Reserve—June 30, 1941 (Credit)							$4,158,335.89

SCHEDULE No. 2

HETCH HETCHY POWER REPLACEMENT AND RECONSTRUCTION FUND

RECEIPTS AND DISBURSEMENTS

Fiscal Year 1940-1941

Balance—June 30, 1940				$274,808.40
Receipts During Year 1940-1941:				
Budget Appropriation, 1940-1941, C. C. T. V. No. 58, August 16, 1940				25,321.00
				$300,129.40
Disbursements During Year 1940-1941:				
Replacement of One High Voltage Condenser Type Bushing for G11-154 Oil Current Breaker	Warrant	252	$1,028.35	
Replacement of Water Line, Early Intake	C. S. T. V	021	963.36	
Replacement of Heating System in Moccasin Shop	Warrant	661	136.53	
Replacement of Septic Tank, Early Intake	C. S. T. V.	028	481.24	
Replacement of Heating System in Moccasin Shop	Warrant	762	12.66	
Replacement of One G. E. Arc Welder, Type W. D. 12, Motor Driven, 250-Amp	Warrant	849	369.90	
Replacement of Eleven Old Fire Extinguishers in Moccasin Power House	Warrant	850	660.65	
Replacement of Porcelain Insulator Units in 110-KV Transmission Line	C. S. T. V.	045	2,793.25	
Replacement of Poles, Cross Arms, Etc., in 22-KV Transmission Line	C. S. T. V.	046	1,249.83	
Replacement of Electric Bench Grinder in Moccasin Power House	Warrant	933	85.80	
Replacement of Heating System in Moccasin Shop	Warrant	943	657.47	
Replacement of Heating System in Moccasin Shop—Freight	Warrant	973	1.16	
Replacement of One G. E. Arc Welder, Type W. D. 12, Motor Driven, 250-Amp.—Freight	Warrant	995	19.90	
Replacement of Eleven Old Fire Extinguishers in Moccasin Power House—Freight Refund	Warrant	995	*.34*	
Replacement of Electric Bench Grinder in Moccasin Power House—Freight	Warrant	1181	.94	
Replacement of Heating System in Moccasin Shop—Freight	Warrant	1183	4.35	
Replacement of Wooden Porch, Cottage No. 19, at Moccasin	C. S. T. V.	054	280.36	
Replacement of Heating System in Moccasin Shop	C. S. T. V.	055	444.88	
Replacement of Heating System in Moccasin Shop	C. S. T. V.	056	178.32	
Replacement of Porcelain Insulator in 110-KV Transmission Line	C. S. T. V.	058	2.052.83	
Contribution to Hetch Hetchy Water Supply for Replacements and Reconstruction	J. E.	6-12	142.988.49	154.409.93
Treasurer's Cash Balance—June 30. 1941				$145.719.47

Italic figures denote loss and deficiency.

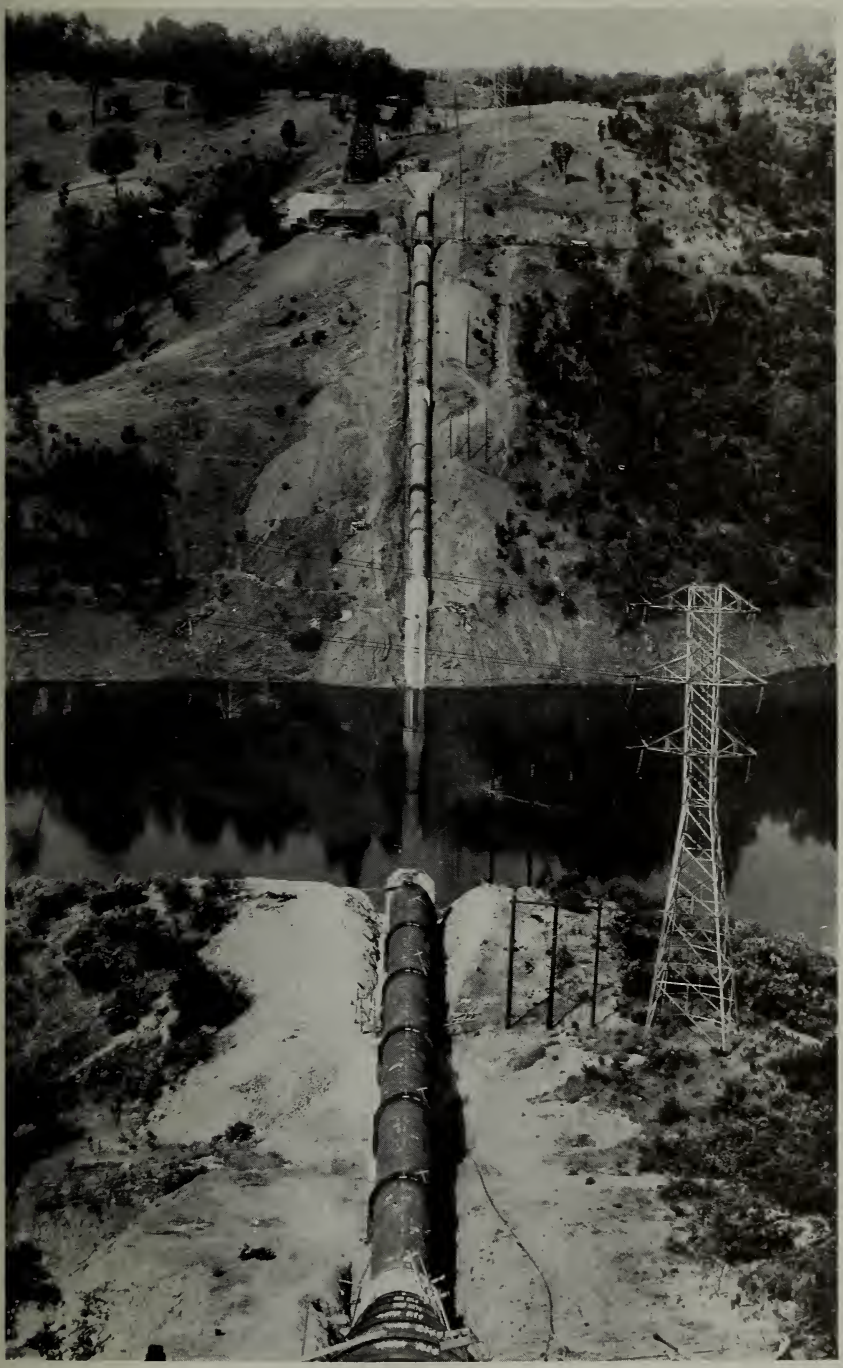
SCHEDULE No. 3

HETCH HETCHY POWER DIVISION

DETAIL OF INTER-FUND BALANCES

June 30, 1941

		Order	Department Number	Controller's Number	Invoice Number	Detail Debit	Detail Credit
	INTER-FUND ACCOUNTS—PUBLIC SERVICE ENTERPRISES						
3300	SAN FRANCISCO WATER DEPARTMENT						
	Automobile Insurance, Fiscal Year 1940-1941	W. O.	068-30	422	H.H.P. 6-137		$238.92
	Telephone Calls and Miscellaneous, January 1, to June 30, 1941	W. O	068-51	1480	H.H.P. 6-138		84.91
							$323.83
3310	HETCH HETCHY WATER SUPPLY						
	Due to Hetch Hetchy Water Supply on Account of Lack of Cash to Pay Commitments				J. E. 6-42		$171,261.70
	Total Public Service Enterprises						$171,585.53
	INTER-FUND ACCOUNTS—GENERAL CITY AND COUNTY						
3400	EMPLOYEES' RETIREMENT SYSTEM						
	Hetch Hetchy Power Division Employees' Retirement System—June Contributions	D. P.			H.H.P. 6-4		$283.93
3410	RECREATION DEPARTMENT						
	Telephone Calls Month of July, 1940	S. O.	1827	4	H.H.P. 8-4	$5.70	
	Telephone Calls Month of August, 1940	S. O.	1827	4	H.H.P. 9-3	3.55	
	Telephone Calls Month of September, 1940	S. O.	1827	4	H.H.P. 10-2	2.25	
	Telephone Calls Month of October, 1940	S. O.	1827	4	H.H.P. 11-2	1.45	
	Telephone Calls Month of November, 1940	S. O.	1827	4	H.H.P. 12-3	.95	
	Telephone Calls Month of December, 1940	S. O.	1827	4	H.H.P. 1-2	.90	
	Electric Energy Month of January, 1941	S. O.	2001	397	H.H.P. 1-7	41.03	
	Electric Energy Month of February, 1941	S. O.	2001	397	H.H.P. 2-6	27.84	
	Telephone Calls Month of February, 1941	S. O.	1827	4	H.H.P. 3-2	1.50	
	Electric Energy Month of March, 1941	S. O.	2001	397	H.H.P. 3-8	26.80	
	Electric Energy Month of April, 1941	S. O.	2001	397	H.H.P. 4-6	90.74	
	Telephone Calls Month of April, 1941	S. O.	1827	4	H.H.P. 5-3	1.30	
	Electric Energy Month of May, 1941	S. O.	2001	397	H.H.P. 5-6	73.64	
	Telephone Calls Month of May, 1941	S. O.	1827	4	H.H.P. 6-6	.90	
	Electric Energy Month of June, 1941	S. O.	2001	397	H.H.P. 6-11	233.84	
	Telephone Calls Month of June, 1941	S. O.	1827	4	H.H.P. 6-29	2.20	
						$514.59	
3420	GENERAL FUND—LIGHTING OF PUBLIC STREETS AND BUILDINGS						
	Electric Energy Bills at Livermore and Riverbank, June, 1941				J. E. 6-26		$3.62
	Total General City and County					$514.59	$287.55



RED MOUNTAIN BAR SIPHON
Scene of future power house which would pay for itself in three years.

EXHIBIT A

HETCH HETCHY WATER SUPPLY

PROPRIETARY BALANCE SHEET—JUNE 30, 1941

ASSETS AND OTHER DEBITS

UTILITY PLANT:			
Hetch Hetchy Water Supply Property (Schedule No. 1)			$93,243,812.41
Construction Work in Progress (Schedule No. 6)			3,501.74
			$93,247,314.15
Less Reserve for Depreciation H. H. W. S. Properties (Schedule No. 1 and 1-C)			7,708,337.54
Remainder Depreciated Value			$85,538,976.61
INVESTMENTS:			
Other Physical Property:			
Amazon and Glen Park Reservoir Sites			$460,925.00
Total Investments			$460,925.00
CURRENT AND ACCRUED ASSETS:			
Cash on Deposit with Treasurer:			
Hetch Hetchy Project, Operating Fund (Schedule No. 3)		$96,936.86	
Hetch Hetchy Reconst. and Replacement Fund (Schedule No. 2 and 3)		144,261.10	
Hetch Hetchy Bond Funds (Schedule No. 3)		114,200.92	$355,398.88
Special Deposits with Treasurer:			
Hetch Hetchy Bond Interest Funds (Schedule No. 3)		$862,032.50	
Hetch Hetchy Bond Redemption Funds (Schedule No. 3)		1,055,000.00	
Hetch Hetchy W. S. Land Purchase Fund (Schedule No. 3)		1,302.50	1,918,335.00
Working Funds:			
Hetch Hetchy Water Supply Revolving Fund			5,000.00
Accounts Receivable:			
Accounts Receivable—Miscellaneous		$24.25	
Uncollectable Accounts Receivable	$15,664.56		
Less Reserve for Doubtful Accounts	15,664.56	.....	24.25
Receivables from Municipality:			
Interfund Accounts, P. S. E. (Schedule No. 4):			
San Francisco Water Dept.		$93,546.16	
Hetch Hetchy Power Division		171,261.70	
Municipal Railway		1,139.33	
San Francisco Airport		8,734.82	274,682.01
Interfund Accounts, General C. & C. (Schedule No. 5):			
Recreation Department		$10,169.35	
Department of Public Works		1,291.65	
General Fund		14,315.58	25,776.58
Materials and Supplies:			
Corral Hollow Pipe Line			275,393.71
Prepayments:			
Prepaid Rent		$15,000.00	
Prepaid Tesla Chlorinator Power Line	$3,934.88		
Less Reserve for Amortization P. Line	1,359.38	2,575.50	17,575.50
Total Current and Accrued Assets			$2,872,185.93
DEFERRED DEBITS:			
Suspense Debits:			
Sales Tax (Contra)			$4,418.17
Preliminary Survey and Investigations:			
Cherry River Development			18,996.02
Commitments—H. H. Project Operating Fund—Contra			13,132.16
Commitments—1932 Bond Fund—Contra			13,535.18
Commitments—Reconstruction and Replacement Fund—Contra			78.13
Work in Progress:			
Accounts Receivable and Interfund (Schedule No. 6)			3,381.48
Total Deferred Debits			$53,541.14
Total Accrued and Other Debits			$88,925,628.68

EXHIBIT A—Continued

PROPRIETARY BALANCE SHEET—JUNE 30, 1941

LIABILITIES AND OTHER CREDITS

LONG TERM DEBT:		
Bonds—Municipality:		
Issues 1910 to 1933, Due 12/1/1941 to July 1, 1977 (Schedule No. 3)		$52,653,300.00
CURRENT AND ACCRUED LIABILITIES:		
Accounts Payable and Commitments:		
Warrants Outstanding (Schedule No. 3)		$40,294.36
Contracts, Purchase Orders, etc.:		
For Materials and Services Rendered	$36,989.43	
Commitments—H. H. P. O. Fund—Contra	13,132.16	
Commitments—1932 Bond Fund—Contra	13,535.18	
Commitments—Reconstruction and Replacement Fund, Contra	78.13	63,734.90
Payables to Municipality:		
Interfund Accounts, P. S. E. (Schedule No. 4):		
San Francisco Water Dept.	$2,689.71	
Municipal Railway	603.09	3,292.80
Interfund Accounts, General C & C (Schedule No. 5):		
Employees' Retirement System	$1,750.13	
Dept. of Public Works	55.95	
Public Utilities Commission	64.63	
General Fund	250,019.81	251,890.52
Matured Long Term Debt:		
Matured Bonds Not Presented For Payment (Schedule No. 3)	$55.000.00	
Maturing July 1, 1941 (Schedule No. 3)	1,600,000.00	1,655,000.00
Matured Bond Interest:		
Matured Coupons Not Presented for Payment (Schedule No. 3)	$147,032.50	
Maturing July 1, 1941 (Schedule No. 3)	1,214,500.00	1,361,532.50
Interest Accrued, Not Due (Schedule No. 3)		33,369.99
Total Current and Accrued Liabilities		$3,409,115.07
DEFERRED CREDITS:		
Suspense Credits, Sales Tax (Contra)		$4.418.17
Total Deferred Credits		$4.418.17
RESERVES:		
Injuries and Damages Reserve		$398.38
Employees' Provident Reserve:		
Reserve for Vacations	$2,652.66	
Reserve for Sick Leave	1,909.41	
Reserve for Retirement System	3,266.22	7,828.29
Reserve for Overhead and Miscellaneous Expenses		32.24
Reserve for Advance. Work Not Yet Performed:		
San Francisco Water Dept.	$14,156.74	
Hetch Hetchy Power Division	35.83	
Municipal Railway	35.83	14,228.40
Total Reserves		$22.487.31
Total Liabilities		$56.089,320.55
SURPLUS:		
Surplus (Exhibit C)		$32,836.308.13
Total Liabilities and Other Credits		$88,925,628.68

EXHIBIT B

HETCH HETCHY WATER SUPPLY

COMPARATIVE INCOME STATEMENT

	July 1, 1940 to June 30, 1941	July 1, 1939 to June 30, 1940	PERIOD July 1, 1935 to June 30, 1941
OPERATING REVENUES:			
Water Sales:			
Sale of Water Power, H. H. P. D.	$735,474.00	.....	$735,474.00
Standby Charge and Sale of Water, S. F. W. D.	773,284.00	.....	773,284.00
Total Operating Revenues	$1,508,758.00	.....	$1,508,758.00
OPERATING REVENUE DEDUCTIONS:			
Operating Expenses:			
Production and Transmission Expenses	$112,477.97	$43,425.51	$341,258.15
Administration and General Expenses	70,166.66	68,898.91	296,524.95
	$182,644.63	$112,324.42	$637,783.10
Depreciation Expense	1,317,938.05	1,309,483.49	7,745,014.38
Valuation of Properties	.....	.....	10,563.52
Taxes (Actually Paid)	9,124.95	4,318.07	24,423.67
Fee to U. S. Government	30,000.00	15,000.00	71,680.00
Total Operating Revenue Deductions	$1,539,707.63	$1,441,125.98	$8,489,464.67
Net Operating Income	*$30,949.63*	*$1,441,125.98*	*$6,980,706.67*
OTHER INCOME:			
Miscellaneous Non-Operating Revenue:			
Rental Income, Miscellaneous	$2,488.75	$2,509.70	$15,154.32
Interest Earned on Bank Deposits	.....	.....	26.61
Interest Earned on Treasurer's Balances	.....	.....	5,332.75
Miscellaneous	473.15	57.81	560.10
Total Other Income	$2,961.90	$2,567.51	$21,073.78
Gross Income	*$27,987.73*	*$1,438,558.47*	*$6,959,632.89*
INCOME DEDUCTIONS:			
Interest on Long Term Debt	$2,518,049.89	$2,608,792.18	$15,953,829.27
Net Income Transferred to Surplus	*$2,546,037.62*	*$4,047,350.65*	*$22,913,462.16*

Italic figures denote loss and deficiency.

EXHIBIT C

HETCH HETCHY WATER SUPPLY

SURPLUS ACCOUNT

JUNE 30, 1941

FOR FISCAL YEAR 1940-1941

SURPLUS—June 30, 1940		$31,919,775.98
Adjustments Made in Current Year Applicable to Prior Years Surplus		
ADD:		
Transfer of Portion of Corral Hollow Pipe Line Materials to San Francisco Water Department	$88,942.18	
Adjustment of Inventory of Corral Hollow Pipe Line Materials	1,543.71	
Transfer of Westinghouse Electric Refrigerator from P. U. C. General Office to Damsite	76.43	90,562.32
		$32,010,338.30
DEDUCT:		
Insufficient Depreciation Charged in Prior Years to Fully Depreciate Equipment Disposed of in 1940-41		1,668.79
Adjusted Surplus as of June 30, 1940		$32,008,669.51
Changes in Surplus for the Current Year:		
ADD:		
Contributions from Taxes and General Fund for Bond Interest and Redemption for 1940-41	$1,500,617.36	
Contributions through the General Fund from San Francisco Water Dept. for Bond Interest and Redemption 1940-41	569,526.00	
Contributions from San Francisco Water Dept. for Operating Expenses 1940-41	223,414.30	
Contributions from H. H. Power Division for Bond Interest and Redemption 1940-41	871,117.00	
Additional Contribution from H. H. Power Division for Bond Interest and Redemption 1940-41	50,000.00	
Contributions from H. H. Power Division for Reconstruction and Replacement 1940-41	159,001.58	3,373,676.24
		$35,382,345.75
DEDUCT:		
Net Loss for Fiscal Year 1940-41		2,546,037.62
Surplus at June 30, 1941		$32,836,308.13

COMPOSITION OF SURPLUS, JUNE 30, 1941

ADDITIONS:		
Contributions from Taxes and General Fund	$32,618,277.69	
Contributions from H. H. Power Division for Bond Interest and Redemption and Construction	19,708,995.52	
Contributions from H. H. Power Division for Reconstruction and Replacements	171,668.03	
Contributions from San Francisco Water Dept. for Bond Interest and Redemption	2,905,345.00	
Contributions from San Francisco Water Dept. for Operating Expense	745,767.27	
Contributions from San Francisco Water Dept. for Reconstruction and Replacement	27,789.77	
Interest Received from Other Funds	77,801.23	
Bond Premium 1910-1932 Bond Funds	1,240,169.26	
Bond Premium 1933 Hetch Hetchy Dam Bonds	137,438.55	
Grants Earned on Federal Public Works Projects—Hetch Hetchy Dam and Moccasin Diversion Works	1,211,450.00	
Miscellaneous Additions to Surplus	399.77	$58,845,102.09
DEDUCTIONS:		
Net Loss July 1, 1935 to June 30, 1941	$22,913,462.16	
Bond Discount, 1910 Hetch Hetchy Bonds	737,956.39	
Retirement of Corral Hollow Pipe Line	1,242,889.11	
Cost of Newark-San Lorenzo Pipe Line Transferred to San Francisco Water Department	1,063,840.76	
Contribution from 1932 Hetch Hetchy Bond Fund to H. H. Power Div. for Construction of 4 Cottages at Early Intake	38,791.05	
Miscellaneous Deductions from Surplus	11,854.49	26,008,793.96
Surplus at June 30, 1941		$32,836,308.13

EXHIBIT "D"

HETCH HETCHY WATER SUPPLY

COMPARATIVE STATEMENT OF OPERATING EXPENSES

	OPERATION	July 1, 1940 to June 30, 1941	July 1, 1939 to June 30, 1940	PERIOD July 1, 193 to June 30, 19
6000	Salaries and Wages	$23,269.83	$10,543.56	$86,851.5
6010	Contributions to Retirement System	1,042.87	754.80	4,269.2
6020	Compensation Insurance	.....	.....	113.1
6030	Traveling	323.87	424.07	1,148.5
6050	Operating Supplies	991,81	1,053.59	6,343.4
6090	Miscellaneous	356.05	327.74	2,147.9
6096	Rent of Warehouse	196.68	90.00	466.6
	Total Plant Operating Expenses	$26,181.11	$13,193.76	$101,340.4
	REPAIRS AND MAINTENANCE			
7000	Buildings and Structures (Water)	$1,917.16	$ 764.25	$11,363.2
7002	Buildings and Structures (Joint)	21,497.65	3,744.59	37,831.15
7010	Reservoirs, Dams and Intakes	6,438.85	1,519.08	11,752.97
7015	Waterways	4,739.18	122.51	5,865.56
7020	Pipelines	8,415.17	5,000.40	32,866.09
7030	Miscellaneous Equipment (Joint)	2,845.89	1,278.32	10,845.44
7035	Aqueduct Tunnels	4,175.43	2,498.08	18,216.99
7040	Roads and Trails (Mather to Moccasin)	12,563.12	5,958.14	44,051.60
7041	Roads and Trails (Moccasin to Tesla Portal)	2,626.88	1,219.55	7,250.88
7042	Roads and Trails (Tesla Portal to Irvington)	2,100.89	1,526.15	8,121.87
7050	Automotive Transportation Equipment (Water)	1,708.12	1,546.99	2,525.77
7051	Automotive Transportation Equipment (Joint)	1,549.99	460.68	5,790.34
7090	Miscellaneous	2,495.40	786.71	11,613.76
7092	Telephone Lines	7,560.78	.....	7,560.78
7095	Hydrography	5,662.35	3,806.30	24,261.29
	Total Repairs and Maintenance Expenses	$86,296.86	$30,231.75	$239,917.69
	Total Production and Transmission Expenses	$112,477.97	$43,425.51	$341,258.15
	ADMINISTRATIVE AND GENERAL			
8000	Salaries and Wages	$56,985.59	$29,480.08	$135,928.98
8005	Contributions to Retirement System	2,274.34	978.23	5,167.75
8010	Services of Other Departments	1,524.27	6,425.22	39,232.12
8015	Professional Services	1,621.37	1,236.75	9,765.83
8020	Stationery, Office Supplies and Postage	1,830.52	209.06	3,648.81
8021	Sundry Office Expense	305.63	13.62	319.25
8025	Telephone and Telegraph	167.80	571.00	2,231.80
8030	Traveling	415.37	334.83	3,936.01
8035	Insurance	539.60	.....	655.52
8040	Injuries and Damages	1,128.73	72.88	2,346.47
8041	Allowance for Sick Leave	.....	.....	500.00
8051	Automobile Insurance Premiums	877.03	780.50	3,800.32
8061	Water Rights and Damage Claims	24,321.72	26,877.81	105,961.00
8062	Legal Expense—Water Rights Litigation	.....	200.00	3,133.79
8063	Legal Expense—Tuolumne River Claims	2,149.86	1,714.93	3,864.79
8064	Legal Expense—Transbay Suit	2,366.99	.....	2,366.99
8095	Miscellaneous	.....	4.00	7.68
8877	Expenses Transferred—Credit	*26,342.16*	.....	*26,342.16*
	Total Administrative and General Expenses	$70,166.66	$68,898.91	$296,524.95
	Total Water Operating Expenses	$182,644.63	$112,324.42	$637,783.10

Italic figures denote loss and deficiency.

EXHIBIT "E"

HETCH HETCHY WATER SUPPLY

COMPARISON OF ACTUAL REVENUES AND EXPENSES WITH BUDGET ESTIMATES

Fiscal Year 1940-41

	Fiscal Year 1940-41	Month of June, 1941			Twelve Months to June 30, 1941		
	Budget and Modifications	Budget and Modifications	Expenses Revenues Accruals	Increase or Decrease	Budget and Modifications	Expenses Revenues Accruals	Increase or Decrease
Production and Transmission Expenses:							
Operation	$31,476.00	$2,623.00	$2,101.84	$521.16	$31,476.00	$26,181.11	$5,294.89
Repairs and Maintenance	90,401.00	7,533.41	15,610.04	*8,076.63*	90,401.00	86,296.86	4,104.14
Administrative and General Expense	72,352.00	6,029.34	6,727.60	*698.26*	72,352.00	70,166.66	2,185.34
Total Oper. Expense, Exclusive of Depreciation	$194,229.00	$16,185.75	$24,439.48	*8,253.73*	194,229.00	182,644.63	11,584.37
Taxes	9,216.00	768.00	754.55	13.45	9,216.00	9,124.95	91.05
Fee to U. S. Government (Raker Act)	30,000.00	2,500.00	2,500.00	.....	30,000.00	30,000.00	.....
Bond Interest	2,533,049.00	211,087.43	208,235.05	2,852.38	2,533,049.00	2,518,049.89	14,999.11
Bond Redemption	1,966,900.00	163,908.32	163,908.32	.....	1,966,900.00	1,966,900.00	.....
Current Reconstruction and Replacements	17,450.00	1,454.16	1,275.30	178.86	17,450.00	16,850.96	599.04
Total Budget for Expenditures 1940-41	$4,750,844.00	$395,903.66	$401,112.70	*$5,209.04*	$4,750,844.00	$4,723,570.43	$27,273.57
RECEIPTS							
Revenue:							
Sale of Water for Power	$735,474.00	$61,289.50	$61,289.50	$	$735,474.00	$735,474.00	$ .....
Standby Charge and Sale of Water	773,284.00	64,440.32	64,440.32	.....	773,284.00	773,284.00	.....
Total Revenue	$1,508,758.00	$125,729.82	$125,729.82	.....	$1,508,758.00	$1,508,758.00	.....
Receipts by Transfer:							
Hetch Hetchy Power Division	$938,567.00	$78,213.92	$78,213.92	.....	$938,567.00	$938,567.00	.....
San Francisco Water Department	803,919.00	66,993.25	66,993.25	.....	803,919.00	803,919.00	.....
General Fund (Taxes)	1,500,548.00	125,045.68	125,045.68	.....	1,500,548.00	1,500,548.00	.....
Total Receipts	$3,243,034.00	$270,252.85	$270,252.85	.....	$3,243,034.00	$3,243,034.00	.....
Total Revenue and Receipts	$4,751,792.00	$395,982.67	$395,982.67	.....	$4,751,792.00	$4,751,792.00	.....
Net Savings Over Budget Estimate				*$5,209.04*			$27,273.57

Italic figures denote loss and deficiency.

Schedule No. 1

HETCH HETCHY WATER SUPPLY

1000 FIXED CAPITAL IN SERVICE

June 30, 1941

Account Number		Balance June 30, 1940	Gross Additions	Retirements	Adjustments	Balance June 30, 1941	Accrued Depreciation
1010-C2	Franchises and Water Rights	$2,735,630.00	.....	.....	.....	$2,735,630.00	.....
1015-C5	Landed Capital:						
A	Source of Water Supply Land	$172,163.00	.....	.....	.....	$172,163.00	.....
D	Right of Way Land	614,165.05	$5,881.31	$9.60	.....	620,036.76	.....
E	General Office and Other Lands	68,928.00	.....	.....	.....	68,928.00	.....
F	Roads, Trails and Tramways (including H. H. Railroad)	919,706.55	3,821.67	3,821.67	*$557.56*	919,148.99	$171,388.38
		$1,774,962.60	$9,702.98	$3,831.27	*$557.56*	$1,780,276.75	$171,388.38
1020-C6	Buildings, Structures and Grounds:						
A	Source of Water Supply Buildings and Fixtures	$141,656.58	.....	.....	*$384.37*	$141,272.21	$29,140.27
B	Pumping Stations, Buildings and Fixtures	11,014.00	.....	.....	.....	11,014.00	1,652.05
C	Purification, Buildings and Fixtures	28,210.00	.....	.....	.....	28,210.00	2,020.60
D	General Office and Other Buildings and Fixtures	14,571.00	.....	.....	.....	14,571.00	14,571.00
		$195,451.58	.....	.....	*$384.37*	$195,067.21	$47,383.92

1025-C7	Impounding Dams and Reservoirs	$16,330,470.21	$1,359.60	.....	*$653.54*	$16,331,176.27	$945,113.92
1025-C8	Lake and River Cribs	747,161.00	.....	.....	.....	747,161.00	46,974.71
1025-C13	Canals and Conduits	71,229,318.18	5,582.74	3,200.52	*2,362.25*	71,229,338.15	6,427,362.21
1030-C14	Pumping Equipment	$88,306,949.39	$6,942.34	$3,200.52	*$3,015.79*	$88,307,675.42	$7,419,450.84
1035-C16	Purification Capital	$24,521.00	.....	.....	.....	$24,521.00	$7,356.15
		$37,207.00	.....	.....	.....	$37,207.00	$5,930.58
1045-C24	General Equipment:						
A	General Office Equipment	$26,083.30	$ 488.49	$ 655.69	*$20,422.63*	$5,493.47	$1,759.81
D	General Stable and Garage Equipment	25,317.25	6,307.24	3,825.30	*4,091.00*	23,708.19	16,415.82
E	General Construction Equipment	30,219.17	2,257.48	2,044.60	*8,335.94*	22,096.11	17,929.38
F	Railroad Rolling Stock	14,804.00	.....	.....	*800.00*	14,004.00	8,589.74
G	Communication System Equipment	43,690.00	1,303.05	1,303.05	.....	43,690.00	11,394.12
H	Other Equipment	5,155.59	328.67	214.29	.....	5,269.97	738.80
		$145,269.31	$10,684.93	$8,042.93	*$33,649.57*	$114,261.74	$56,827.67
1049-C24J	General Capital Unclassified	$29,076.71	.....	.....	$24,220.29	$53,297.00	.....
1050-C25	Undistributed Construction Expenditures:						
A	Engineering Superintendence	$1,589.45	$50.38	.....	.....	$1,639.83	.....
E	Miscellaneous Construction Expenditures	.....	.....	.....	.....	.....	.....
F	Undistributed Construction Expenditures	*13,387.00*	.....	$5,763.54	$13,387.00	*5,763.54*	.....
		$11,797.55	$50.38	$5,763.54	$13,387.00	*$4,123.71*	.....
		$93,237,270.04	$27,380.63	$20,838.26	.....	$93,243,812.41	$7,708,337.54
2000	Construction Work in Progress				.....	$3,501.74	.....
	Schedule		1-A	1-B		Exh. "A"	1-C

SCHEDULE No. 1A

HETCH HETCHY WATER SUPPLY

GROSS ADDITIONS

June 30, 1941

1015-C-50	LANDED CAPITAL—RIGHT OF WAY:		
	Improving Connolly Well	$632.93	.....
	Compromise of that certain Action pending in Superior Court, Alameda County, John Antrim Bunting vs. City and County of San Francisco, Payment by Warrant No. 2297, October 23, 1940	5,000.00	.....
	Deepening Spring No. 49C Escobar Ranch	248.38	$5,881.3
1015-C-5F	LANDED CAPITAL—ROADS, TRAILS AND TRAMWAYS:		
	New Section of Bridge Lower Cherry Power Division Road	.....	3,821.6
1025-C-7	IMPOUNDING DAMS AND RESERVOIRS:		
	Steel Stairway for O'Shaughnessy Dam	.....	1,359.6
1025-C-13	CANALS AND CONDUITS:		
	New Section of Flume Lower Cherry Aqueduct	$2,143.66	.....
	New Portable Head Frame Coast Range Tunnel	2,037.36	.....
	One Meter House Red Mountain Bar Siphon	315.38	.....
	Hospitalization—Coast Range Division	344.86	.....
	New Spillway "D", Tunnel No. 3, Lower Cherry Aqueduct	741.48	5,582.7
1045-C-24A	GENERAL EQUIPMENT—GENERAL OFFICE EQUIPMENT:		
	One New 26" Typewriter, Royal KDTMM Pica No. 2500621, San Francisco Office	$165.82	.....
	One New Adding Machine Burroughs Style No. 91354, Serial No. A350840, San Francisco Office	321.67	.....
	One Fairbanks Scale—Room 501, San Francisco Office	1.00	488.4
1045-C-24D	GENERAL EQUIPMENT—GENERAL STABLE AND GARAGE EQUIPMENT:		
	One New 1941 Ford V8, ¾-Ton Closed Cab Express, Motor No. 18-6069801, Equipment No. 13A	$822.94	.....
	One New 1941 Chevrolet De Luxe Coupe, Motor No. 4302929, Equipment No. 12A	839.83	.....
	One Dodge Express Truck, Motor No. TDP 3097, Equipment No. 6, Transferred from H. H. Power Division	625.00	.....
	One New 1941 Chevrolet ½ Ton Pickup, Motor No. AD 240078, Serial No. 6 AK 12-4108, Equipment No. 6A	673.09	.....
	One New 1941 Chevrolet 1 Ton Pickup Truck, Motor No. AAF 61459, Serial No. 6AD12-4078, Equipment No. 103A	752.93	.....
	One New 1941 Chevrolet Suburban Carry-all, Motor No. AD 319884, Serial No. 6AK12-4789, Equipment No. 3A	917.73	.....
	One New 1941 Chevrolet Suburban Carry-all, Motor No. AD41116, Serial No. 6AK02-6340, Equipment No. 210	880.95	.....
	One New 1941 Chevrolet ½ Ton 115" W. B., Canopy Express, Motor No. AD 677864, Serial No. 6AK04-9174, Equip. No. 48	794.77	6,307.2
1045-C-24E	GENERAL EQUIPMENT—GENERAL CONSTRUCTION EQUIPMENT		
	One New Dragsaw Multnomah Model YK Standard with 4 h.p. Gas Engine No. 80559	$143.80	.....
	One New Bulldozer for 35 Caterpillar Tractor, Serial No. 5C824, Model RH-D6ATECO	1,344.39	.....
	One New Rowboat, Lake Eleanor	77.68	.....
	New Batteries in Elwell Parker Industrial Truck	300.21	.....
	Two New Jackhammers No. 38, Thor Cochise Dry Type	391.40	2,257.4
1025-C-24G	GENERAL EQUIPMENT—COMMUNICATION SYSTEM EQUIPMENT:		
	New Poles, Cross Arms, etc., in Telephone Lines (1940-1941)	.....	1,303.0
1025-C-24H	GENERAL EQUIPMENT—OTHER EQUIPMENT:		
	One Westinghouse Electric Refrigerator at Damsite, from P. U. C. General Office	$114.38	.....
	New Pumps and Motor, Groveland Well	214.29	328.6
1050-C-25A	GENERAL CAPITAL UNCLASSIFIED—ENGINEERING SUPERINTENDENCE:		
	Completion of Records Concerning Construction of Hetch Hetchy Project	.....	50.3
	Total Gross Additions		$27,380.6

SCHEDULE No. 1B

HETCH HETCHY WATER SUPPLY

RETIREMENTS

June 30, 1941

1015-C-5D	LANDED CAPITAL—RIGHT OF WAY:		
	Balance of Deposit by City and County of San Francisco on June 25, 1931, in Connection with the San Joaquin Pipe Line Right of Way	....	$9.60
1015-C-5F	LANDED CAPITAL—ROADS, TRAILS AND TRAMWAYS:		
	Retire Section of Bridge Lower Cherry Aqueduct	.....	3,821.67
1025-C-13	CANALS AND CONDUITS:		
	Retire Section of Flume Lower Cherry Aqueduct	$2,143.66	.....
	Retire Meter House Red Mountain Bar Siphon	315.38	.....
	Retire Spillway "D" Tunnel No. 3, Lower Cherry Aqueduct	741.48	3,200.52
1045-C-24A	GENERAL EQUIPMENT—GENERAL OFFICE EQUIPMENT:		
	Retire One Filing Cabinet, Art Metal, 5 Drawer Letter	$15.00	.....
	Retire One Book Case, 5 Compartment Shelving, Equip. No. 62-378	1.00	.....
	Retire One Book Case, 18 Compartment Shelving, Equip. No. 66-376	1.00	.....
	Retire One Straight Chair, Equipment No. 62-459	5.00	.....
	Retire One Draftsman's Stool, Oak with Back, Equip. No. 62-415	15.00	.....
	Retire Two Stools, Equipment No. 62-495, Other Effaced	10.00	.....
	Retire One Wood Stool, Equipment No. 62-669	5.00	.....
	Retire One Oak Table 2 Drawer 60"x34"	20.00	.....
	Retire One Wood Table, 1 Drawer, Equipment No. 62-447	20.00	.....
	Retire One Underwood Typewriter No. 3, 20", Serial No. 154972	1.00	.....
	Retire One Filing Cabinet Art Metal 5 Drawer Legal	30.00	.....
	Retire One 26" Underwood Typewriter No. 4396570	162.69	.....
	Retire One Adding Machine Burroughs No. 4-1250728, San Francisco Office	370.00	655.69
1045-C-24D	GENERAL EQUIPMENT—STABLE AND GARAGE EQUIPMENT:		
	Retire One 1935 Ford V8, ½ Ton Pickup, Motor No. 18-1801382, Equipment No. 13	655.00	.....
	Retire One 1938 Ford V8, Coupe, Motor No. 4302929, Equipment No. 12A	719.00	.....
	Retire One Dodge Express ½ Ton Truck, Motor No. TDP 3097, Equipment No. 6	625.00	.....
	Retire One 1920, ¾ Ton White Truck, Motor No. GK 43721, Equipment No. 103, Serial No. 77674	100.00	.....
	Retire One 1936 Chevrolet Station Wagon, Motor No. K 5900161, Equipment No. 3, Serial No. 6 FB 01-3257	875.00	.....
	Retire One 1940 Chevrolet Carry-all (Wrecked), Motor No. K 3143073, Equipment No. 4A	851.30	3,825.30
1045-C-24E	GENERAL EQUIPMENT—GENERAL CONSTRUCTION EQUIPMENT:		
	Retire Five Jackhammers, 2 No. R39, 2 No. 430, Dry Type, and 1 No. R39 Junked	$170.00	.....
	Retire One Dragsaw—Vaugh Heavy Duty No. 2E	80.00	.....
	Retire Old Batteries in Elwell Parker Industrial Truck	300.21	.....
	Retire One Scraper Austen Rotary No. 35	150.00	.....
	Retire One Bulldozer for 35 Caterpillar Tractor, Serial No. HV6P3283, Model KB, Master Type	1,344.39	2,044.60
1045-C-24G	GENERAL EQUIPMENT—GENERAL CONSTRUCTION EQUIPMENT:		
	Retire Poles, Cross Arms, etc., in Telephone Line (1940-1941)	.....	1,303.05
1045-C-24H	GENERAL EQUIPMENT—OTHER EQUIPMENT:		
	Retire Old Pump and Motor, Groveland Well	.....	214.29
1050-C-25F	UNDISTRIBUTED CONSTRUCTION EXPENDITURES:		
	Dividend from State Compensation Insurance Fund, Policy No. 12,334/34 Expired 10/5/35	$3,903.64	.....
	48.67 Tons of Tee Rail, Joints, Frogs, etc., at $24.00 Per Ton, Sold to Hyman Micheals Co.	1,168.08	.....
	49.1 Tons of Kopple Dump Cars at $14.09 Per Ton, Sold to A. D. Schader	691.82	5,763.54
	Total Retirements		$20,838.26

SCHEDULE No. 1C

HETCH HETCHY WATER SUPPLY

RESERVE FOR DEPRECIATION OF PLANT

DESCRIPTION:	1 Value in Service	2 Cost of Removal	3 Salvage	4 Net Debit to Reserve	5 Credits to Reserve	6 Credit Balance
Balance of Reserve for Depreciation of Plant—June 30, 1940 (Credit)	.....	.....	.....	.....	.....	$6,403,890.85
Normal Annual Depreciation Expense for 1940-41	.....	.....	.....	.....	$1,306,047.35	.....
Adjustment of Depreciation Expense 1940-41 Due to Additions and Retirements	.....	.....	.....	.....	11,890.70	.....
Adjustment of Earned Surplus for Prior Years Due to Additions and Retirements During 1940-41	.....	.....	.....	.....	2,232.74	.....
RETIREMENTS OF:						
Five Jackhammers	$170.00	.....	$100.00	$70.00	.....	.....
One Dragsaw Vaugh, Heavy Duty, No. 2E	80.00	.....	.....	80.00	.....	.....
One 1935 Ford V8, ½ Ton Pickup, Motor No. 18-1801382	655.00	.....	235.00	420.00	.....	.....
One 1938 Ford V8, Coupe, Motor No. 4302929, No. 12A	719.00	.....	467.00	252.00	.....	.....
One 26" Underwood Typewriter No. 4396570	162.69	.....	22.50	140.19	.....	.....
Section of Bridge Lower Cherry Power Division—Road	3,821.67	480.00	.....	4,301.67	.....	.....
Telephone Poles, Cross Arms, etc., in Telephone Line	1,303.05	1,095.22	.....	2,398.27	.....	.....
Section of Flume Lower Cherry Power Division	2,143.66	190.00	.....	2,333.66	.....	.....
One Burroughs Adding Machine No. 4-1250728	370.00	.....	15.00	355.00	.....	.....
One Dodge Express, ½ Ton Truck, Motor No. TDP 3097	625.00	.....	100.00	525.00	.....	.....
One 1920, ¾ Ton White Truck, Motor No. G.K. 43721, Serial No. 77674	100.00	.....	30.00	70.00	.....	.....
One 1936 Chevrolet Station Wagon, Motor No. K5900161, Serial No. 6FB01-3257	875.00	.....	300.00	575.00	.....	.....

One Bulldozer for 35 Caterpillar Tractor, Serial No. HV6P3283, Model KB Master Type	1,344.39	.....	.....	1,344.39	.....	.....
One Filing Cabinet, Art Metal, 5 Drawer, Letter	15.00	.....	.....	15.00	.....	.....
One Book Case, 5 Compartment Shelving	1.00	.....	.....	1.00	.....	.....
One Book Case, 18 Compartment Shelving	1.00	.....	.....	1.00	.....	.....
One Straight Chair	5.00	.....	.....	5.00	.....	.....
One Oak Draftsman's Stool with Back	15.00	.....	.....	15.00	.....	.....
One Wood Stool	5.00	.....	.....	5.00	.....	.....
Two Stools	10.00	.....	.....	10.00	.....	.....
One Oak Table, 2 Drawer 60"x34"	20.00	.....	.....	20.00	.....	.....
One Wood Table, One Drawer	20.00	.....	.....	20.00	.....	.....
One Underwood Typewriter No. 3, 20"	1.00	.....	.....	1.00	.....	.....
One Austin Scraper Rotary No. 35	150.00	.....	.....	150.00	.....	.....
One Meter House, Red Mountain Bar Siphon	315.38	.....	.....	315.38	.....	.....
Old Batteries in Elwell Parker Industrial Truck	300.21	.....	.....	300.21	.....	.....
One Filing Cabinets, Art Metal, 5 Drawer, Legal	30.00	.....	.....	30.00	.....	.....
One 1940 Chevrolet Carryall Motor No. K3143073—Wrecked, No Value	851.30	.....	.....	851.30	.....	.....
Old Spillway "D" Tunnel No. 3 Lower Cherry Power Division	741.48	163.26	.....	904.74	.....	.....
Old Pumps and Motor Groveland Wells	214.29	.....	.....	214.29	.....	.....
Deposit by City and County of San Francisco, in Connection with San Joaquin Pipe Line Right of Way	9.60	.....	9.60	.....	.....	.....
Dividend from State Compensation Insurance Fund, Policy No. 12.334/34, Expired 10/5/35	3,903.64	.....	3,903.64	.....	.....	.....
48.67 Tons of Tee Rail, Joints, Frogs, etc., at $24.00 Per Ton	1,168.08	.....	1,168.08	.....	.....	.....
49.1 Tons of Kopple Dump Cars at $14.09 Per Ton	691.82	.....	691.82	.....	.....	.....
Total Debits and Credits to Reserve, Fiscal Year 1940-41	$20,838.26	$1,928.48	$7,042.64	$15,724.10	$1,320,170.79	$1,304,446.69
Balance of Reserve for Depreciation of Plant, June 30, 1941 (Credit)						$7,708,337.54

SCHEDULE No. 2

HETCH HETCHY WATER SUPPLY RECONSTRUCTION AND REPLACEMENT FUND

RECEIPTS AND DISBURSEMENTS

Fiscal Year 1940-41

Balance, June 30, 1940				
Receipts During Year, 1940-1941:				
Budget Appropriation 1940-41, C. C. T. V. No. 58, August 16, 1940			$12,800.00	.....
Request for Allocation of Funds No. 068-12, Controllers' No. 783, Journal Entry No. 33, June 30, 1941			100.00	.....
Request for Allocation of Funds No. 068-13, Controllers' No. 844, Journal Entry No. 33, June 30, 1941			300.00	.....
Supplemental Appropriation Bill No. 1177, Ordinance No. 1134, Journal Entry No. 33, June 30, 1941			900.00	.....
Contribution by Hetch Hetchy Power Division for Reconstruction and Replacements, Journal Entry No. 33, June 30, 1941			141,688.49	$155,788.49
				$155,788.49
Disbursements During Year 1940-1941:				
Replacement of 5 Jackhammers with 2 Dry Type No. 38 Cochise Jackhammers	Warrant	362	$291.40	.....
Replacement of Dragsaw with One Model Y K Multnomah Dragsaw with 4 h.p. Engine No. 80559 and 2 Saws	Warrant	401	141.44	.....
Replacement of Sections of Road, Bridge and Flume L. C. Aqueduct, Advertising Charges September	C.C.T.V.	113	8.95	.....
Replacement of Wooden Structures, L. C. Aqueduct Road, Advertising Charges October	C.C.T.V.	167	7.62	.....
Replacement of Drag Saw, Freight	Warrant	665	2.36	.....
Replacement of Sections of Road, Bridge and Flume, L. C. Aqueduct H. H. W. S. Contract No. 186	Warrant	790	6,331.03	.....
Replacement of Sections of Road, Bridge and Flume, L. C. Aqueduct, Field Engineering and Inspection	C.S.T.V.	047	287.73	.....
Replacement of Poles, Cross Arms, etc., in Telephone Line	C.S.T.V.	048	1,208.14	.....
Replacement of Bulldozer with One RH-D6 Ateco Bulldozer on 35 Caterpillar Tractor	Warrant	932	1,236.00	.....
Replacement of Batteries in Elwell Parker Industrial Truck	Warrant	1070	283.66	.....
Replacement of Skiff	Warrant	1165	100.94	.....
Replacement of Tracks and Bulldozer for No. 35 Caterpillar Tractor	C.S.T.V.	053	108.39	.....
Replacement of Chevrolet Carryall Truck Wrecked	C.C.T.V.	442	900.00	.....
Replacement of Batteries in Elwell Parker Industrial Truck—Freight	Warrant	1308	16.55	.....
Replacement of Pumps and Motor Groveland Well	Warrant	1396	210.12	.....
Replacement of Boat Lake Eleanor	Warrant	1397	77.68	.....
Replacement of Skiff—Freight	Warrant	1451	5.25	.....
Replacement of Meter House Red Mountain Bar Siphon	C.S.T.V.	064	315.38	11,532.64
				$144,255.85
Plus Warrant No. 1451 Outstanding Between Controller and Treasurer				5.25
Treasurer's Cash Balance, June 30, 1941				$144,261.10

Exh. "A"

SCHEDULE No. 3

HETCH HETCHY WATER SUPPLY AND POWER PROJECT

DETAIL OF FUNDS, BONDED DEBT, AND WARRANTS OUTSTANDING

JUNE 30, 1941

	Operating Funds	Reconstruction and Replacement Funds	Bond Funds	Land Purchases Fund	Bond Interest Funds	Bond Redemption Funds	Bonded Debt Matured Unpaid	Bonded Debt Unmatured	Bond Interest Matured Unpaid	Bond Interest Accrued Not Due	Warrants Outstanding
1910—4½%.....	.....	.....	.....	.....	$566,122.50	$1,000,000.00	$1,000,000.00*	$23,000,000.00	$26,122.50	.....	.....
									540,000.00*	.....	.....
1925—5%.....	.....	.....	.....	.....	179,725.00	.....	.....	7,000,000.00	4,725.00	.....	.....
									175,000.00*	.....	.....
1928—4½%.....	.....	.....	$584.06	.....	12,262.50	.....	600,000.00*	21,600,000.00	12,262.50	.....	$506.00
									499,500.00*	.....	.....
1932—5¾%.....	.....	.....	.....	.....	50,226.25	49,000.00	49,000.00	3,818,000.00	50,226.25	$18,294.58	.....
1932—5%.....	.....	.....	.....	.....	11,525.00	.....	.....	1,184,000.00	11,525.00	4,933.34	.....
1932—4½%.....	.....	.....	.....	.....	562.50	1,000.00	1,000.00	130,000.00	562.50	487.50	.....
1932—4%.....	.....	.....	.....	.....	1,560.00	.....	.....	260,000.00	1,560.00	866.66	.....
1932—3%.....	.....	.....	.....	.....	1,065.00	.....	.....	194,000.00	1,065.00	485.00	.....
1932—2¾%.....	.....	.....	90,725.31	.....	2,543.75	5,000.00	5,000.00	314,000.00	2,543.75	719.58	33.82
1933—4%.....	.....	.....	22,891.55	.....	36,440.00	.....	.....	2,275,000.00	36,440.00	7,583.33	20,000.00
H. H. Proj. Operating.....	$96,936.86	.....	.....	.....	.....	.....	.....	.....	.....	.....	19,749.29
H. H. Proj. Reconst. & Replacement...	.....	$289,980.57	.....	.....	.....	.....	.....	.....	.....	.....	5.25
H. H. W. S.....	.....	.....	.....	$1,302.50	.....	.....	.....	.....	.....	.....	.....
							$55,000.00		$147,032.50		
	$96,936.86	$289,980.57	$114,200.92	$1,302.50	$862,032.50	$1,055,000.00	$1,600,000.00*	$59,775,000.00	$1,214,500.00*	$33,369.99	$40,294.36
H. H. W. S.....	$96,936.86	$144,261.10						$52,653,300.00			
H. H. P. O.....	.....	145,719.47						7,121,700.00			
	$96,936.86	$289,980.57						$59,775,000.00			

*Maturing July 1, 1941

SCHEDULE No. 4

HETCH HETCHY WATER SUPPLY

DETAIL OF INTER-FUND BALANCES

JUNE 30, 1941

PUBLIC SERVICE ENTERPRISES	Invoice No.	Debit	Credit
3300 SAN FRANCISCO WATER DEPARTMENT—WATER REVENUE OPERATING:			
Engineering Services for April, May and June, 1941...	H 6-7	$4,150.02	.....
Engineering for Irrigation System, Sunol Walnut Orchard	H 6-12	453.96	.....
Auto Maintenance for Period Jan. 1, to June 30, 1941..	6-97	.....	$3.66
Long Distance Telephone Service, Photography, etc., January 1, to June 30, 1941	6-121	.....	132.56
Long Distance Telephone Service, Photography, etc., Water Rights and Damage Claims, January 1, to June 30, 1941	6-122	.....	99.10
Long Distance Telephone Service, Photography, etc., 1938 Airport Project, April, May and June, 1941....	6-123	.....	78.63
Auto Insurance Premiums for Period July 1, 1940, to June 30, 1941	6-124	.....	800.00
Auto Insurance Premiums for Period July 1, 1940, to June 30, 1941	6-125	.....	77.03
Refund of Unused Portion of Operating Advance for Fiscal Period 1940-41	J.E.6-37	.....	1,498.73
		$4,603.98	$2,689.71
3300 SAN FRANCISCO WATER DEPARTMENT—WATER EXTENSION RESERVE FUND:			
Transfer of Corral Hollow Pipe Line Material.....	H 6-2	$88,942.18	.....
3310 HETCH HETCHY POWER DIVISION:			
Due from H. H. Power Div. Account Lack of Cash to Pay Commitments	J.E.6-47	$171,261.70	.....
3320 MUNICIPAL RAILWAY:			
Services of Hoisting Engineer at Mariposa Street Storage Yard Period January 1 to June 30, 1941	H 6-5	$232.15	.....
Engineering Services for April, May and June, 1941....	H 6-6	907.18	.....
Refund of Unused Portion of Advance for Utilities Engineering Bureau 1940-41	J.E.6-54	.....	$603.09
		$1,139.33	$603.09
3340 SAN FRANCISCO AIRPORT:			
Office Engineering for San Francisco Airport for the Period January 1 to June 30, 1941	H 6-4	$435.77	.....
Field Engineering for 1938 Airport Project for April, May and June, 1941	H 6-8	6,637.86	.....
Office Engineering for 1938 Airport Project for April, May and June, 1941	H 6-9	1,231.75	.....
Office Engineering for Air Line Terminal—1938 Airport Project	H 6-13	429.44	.....
		$8,734.82	.....
Total Public Service Enterprises.....		$274,682.01	$3,292.80

SCHEDULE No. 5

HETCH HETCHY WATER SUPPLY

DETAIL OF INTER-FUND BALANCES

JUNE 30, 1941

GENERAL CITY AND COUNTY

	Invoice No.	Debit	Credit
3400 EMPLOYEE'S RETIREMENT SYSTEM:			
Utilities Engineering Employees' Contributions for June, 1941	D.P. 6-8	.....	$156.53
Hetch Hetchy Water Supply Employees' Contributions for June, 1941	D.P. 6-9	.....	114.02
Hetch Hetchy Water Supply Employees' Contributions for June, 1941	D.P. 6-10	.....	646.02
Hetch Hetchy Water Supply Employees' Compensation and Medical	D.P. 6-11	.....	134.25
Hetch Hetchy Water Supply Employees' Compensation and Medical	D.P. 6-14	.....	257.50
Hetch Hetchy Water Supply Employees' Compensation and Medical	D.P. 6-15	.....	418.81
Hetch Hetchy Water Supply Employees' Compensation and Medical	D.P. 6-16	.....	17.00
Hetch Hetchy Water Supply Employees' Compensation and Medical	D.P. 6-18	.....	6.00
			$1,750.13
3410 RECREATION DEPARTMENT:			
Construct Water Supply System at Camp Mather	H 6-11	$10,169.35	.....
3430 DEPARTMENT OF PUBLIC WORKS:			
Salvage of Underground Utilities at Treasure Island	H 6-10	$1,291.65	.....
Laboratory Tests of Materials for Addition to Seventeenth St. Car House	6-102	.....	$55.95
		$1,291.65	$55.95
3440 PUBLIC UTILITIES COMMISSION:			
Engineering in Connection with Salvage of Underground Utilities at Treasure Island	6-120	.....	$51.91
Charge for Bid Advertising—Construct Cottage at Moccasin	D.P. 6-17	.....	12.72
			$64.63
3450 GENERAL FUND:			
Due to General Fund for Payment of Electricity Bills—Month of May, 1941	J.E. 5-26	.....	$8.50
Due to General Fund for Payment of Electricity Bills—Month of June, 1941	J.E. 6-27	.....	11.31
Contributions from Taxes and General Fund for Bond Interest and Redemption, Fiscal Year 1940-41	J.E. 8-34	$14,315.58	.....
Due to Cash Reserve Fund—Temporary Loan to Pay Bond Interest and Redemption Due July 1, 1941	C.C.T.V. 563	.....	250,000.00
		$14,315.58	$250,019.81
Total General City and County		$25,776.58	$251,890.52

SCHEDULE No. 6

HETCH HETCHY WATER SUPPLY

DETAIL OF CONSTRUCTION WORK IN PROGRESS AND OTHER WORK IN PROGRESS

JUNE 30, 1941

DETAIL OF CONSTRUCTION WORK IN PROGRESS

Account Number		
2092- 27	Office Engineering, Lights on Crest of O'Shaughnessy Dam	$151.83
2092-104	Litigation Expense—Suit, Transbay Construction Co. vs. City and County of San Francisco	2,833.25
2092-115	Architectural and Engineering Services, Construction of Cottage at Lake Eleanor	254.51
2092- 38	Debris Deflector, Lower Cherry Diversion Dam	262.15
		$3,501.74

DETAIL OF WORK IN PROGRESS—ACCOUNTS RECEIVABLE AND INTERFUND

Account Number		
3664- 89	Office Engineering, San Francisco Airport	*$51.02*
3665- 92	Office Engineering, Replace Tracks on Geary St., Divisadero to Lyon and Jordan to 10th Ave.	1,224.60
3665- 99	Engineering and Architectural Services—Pole Line Feeders, etc., Municipal Railway	930.91
3665-111	Hoisting Engineer, Municipal Railway, Contract No. 184	136.36
3666- 93	Office Engineering, San Andreas, Outlet No. 3, Alemany Pumps	120.04
3699- 83	Field Engineering, Air Line Terminal	1,518.89
3699- 87	Field Engineering, 1938 Airport Project (January, February and March)	*78.35*
3699- 88	Office Engineering, 1938 Airport Project (January, February and March)	*123.39*
3699-105	Field Engineering, 1938 Airport Project (April, May and June)	*67.89*
3699-106	Office Engineering, 1938 Airport Project (April, May and June)	*228.67*
		$3,381.48

Italic figures denote loss and deficiency.

HETCH HETCHY WATER SUPPLY

RESERVE OF SAN FRANCISCO WATER DEPARTMENT AND HETCH HETCHY POWER DIVISION OPERATING ADVANCES FOR COMMITMENTS

JUNE 30, 1940

Order	Number	Contractor or Vendor	Appropriation	Account	Amount	Hetch Hetchy Power Div. Proportion Per Cent	Hetch Hetchy Power Div. Proportion Amount	San Francisco Water Dept. Proportion Per Cent	San Francisco Water Dept. Proportion Amount
Order for Work	668- 3/2316	Turlock Irrigation District	$668,500.08	2000-508	$950.00	.....	.....	100	$950.00
Enc. Request	968-12/ 171	City of Oakdale	968,200.00	6050	7.00	.....	.....	100	7.00
Enc. Request	968- 4/ 115	A. E. Chandler	968,604.03	8063	952.60	.....	.....	100	952.60
Work Order	968-11/ 668	P. U. C. Bureau of Engineering	968,604.03	8063	2,110.16	.....	.....	100	2,110.16
Enc. Request	968-11A/210	Treasurer U. S. A.-Geological Survey	968,991.00	7095	311.50	.....	.....	100	311.50
Purchase	50891	Tidewater Associated Oil Company	968,991.00	7050	30.00	.....	.....	100	30.00
Purchase	51206	Kahn & Keville	968,991.00	7050	25.00	.....	.....	100	25.00
Purchase	51214	Fred J. Lautze	968,991.00	7050	25.00	.....	.....	100	25.00
Purchase	51282	Tidewater Associated Oil Company	968,991.00	7050	30.00	.....	.....	100	30.00
Purchase	51283	Tidewater Associated Oil Company	968,991.00	7050	40.00	.....	.....	100	40.00
Purchase	51284	Tidewater Associated Oil Company	968,991.00	7050	70.00	.....	.....	100	70.00
Purchase	51285	Tidewater Associated Oil Company	968,991.00	7050	20.00	.....	.....	100	20.00
Purchase	51286	Tidewater Associated Oil Company	968,991.00	7050	25.00	.....	.....	100	25.00
Purchase	51287	Tidewater Associated Oil Company	968,991.00	7050	40.00	.....	.....	100	40.00
Purchase	51289	Tidewater Associated Oil Company	968,991.00	7050	30.00	.....	.....	100	30.00
Purchase	51510	Marshall Newell Supply Company	968,991.00	7050	10.51	.....	.....	100	10.51
					$4,676.77				$4,676.77

HETCH HETCHY WATER SUPPLY

REPORT OF EXPENDITURES—FISCAL YEAR 1940-41

Account	DESCRIPTION	Total Expenditures	S. F. Water Dept. Proportion	H. H. Power Proportion	Municipal Railway Proportion
	Expenditures for Operating Expenses (Detail Attached)	$248,111.74	$221,769.58	$13,171.08	$13,171.08
	Expenditures for:				
2000-92-104	Expenses re. Suit, Transbay Construction Co. vs. City and County of San Francisco	$1,644.72	$1,644.72	.....	.....
	EQUIPMENT—REPLACEMENT OF:				
3608-68-21	1933 Dodge ½ Ton Truck No. 6	$573.09	.....	$573.09	.....
3608-68-40	1920 White ¾ Ton Truck No. 103	722.93	.....	722.93	.....
3608-68-41	1935 Ford V-8 ½ Ton Truck No. 13	587.94	.....	587.94	.....
3608-68-42	1936 Chevrolet Station Wagon No. 3	617.73	.....	617.73	.....
3608-68-44	1938 Ford Coupe No. 12-A	372.83	.....	372.83	.....
3608-68-50	No. 6 26" Underwood Typewriter for San Francisco Office	143.32	.....	143.32	.....
3608-68-55	No. 41018 Burroughs Adding Machine for San Francisco Office	306.67	.....	306.67	.....
3608-68-112	1940 Chevrolet Carryall No. 4-A	794.77	.....	794.77	.....
		$4,119.28	.....	$4,119.28	.....
	RECONSTRUCTION AND REPLACEMENTS:				
3608-68-14	Spillway "D" Tunnel No. 3, L. C. P. D.	$904.74	.....	$904.74	.....
3608-68-15	Meter House—Red Mountain Bar Siphon	315.38	.....	315.38	.....
3608-68-16	Poles, Crossarms, etc., in Telephone Lines	1,208.14	.....	1,208.14	.....
3608-68-20	Two Jackhammers	291.40	.....	291.40	.....
3608-68-33	Drag Saw for Lake Eleanor	143.80	.....	143.80	.....

REPORT OF EXPENDITURES—FISCAL YEAR 1940-41—Continued

Account	DESCRIPTION	Total Expenditures	S. F. Water Dept. Proportion	H. H. Power Proportion	Municipal Railway Proportion
3608-68-51	Tracks and Bulldozer for No. 35 Caterpillar	1,344.39	.....	1,344.39	.....
3608-68-52	Wooden Structures L. C. P. D. Road	6,338.65	.....	6,338.65	.....
3608-68-59	Sections of Roadway, Bridge and Flume, L. C. P. D.	296.68	.....	296.68	.....
3608-68-73	14-Foot Boat for Moccasin	106.19	.....	106.19	.....
3608-68-85	Poles, Crossarms, etc., in Telephone Lines	1,190.13	.....	1,190.13	.....
3608-68-96	Batteries for Parker Industrial Truck	300.21	.....	300.21	.....
3608-68-107	Boat for Lake Eleanor	77.68	.....	77.68	.....
3608-68-110	Pumps and Motor at Groveland	214.29	.....	214.29	.....
		$12,731.68	.....	$12,731.68	.....
	Total Expenditures—Operating, Equipment, Replacements and Legal Expense	$266,607.42	$223,414.30	$30,022.04	$13,171.08
	Reserve for Unexpended Operating Advances, June 30, 1941 (Detail Attached)	14,228.40	14,156.74	35.83	35.83
	Total Expenditures and Reserve, as of June 30, 1941	$280,835.82	$237,571.04	$30,057.87	$13,206.91
	ADVANCES				
	Reserve for Unexpended Operating Advances, June 30, 1940 (Detail Attached)	$4,676.77	$4,676.77	.....	.....
	Annual Appropriation Ordinance, Fiscal Year 1940-41	278,563.00	234,393.00	$30,360.00	$13,810.00
	Request for Allocation of Funds No. 068-12, Controller's No. 783	100.00	.....	100.00	.....
	Request for Allocation of Funds No. 068-13, Controller's No. 844	300.00	.....	300.00	.....
	Supplemental Appropriation Bill No. 1177, Ordinance No. 1134	900.00	.....	900.00	.....
		$284,539.77	$239,069.77	$31,660.00	$13,810.00
	Refund Due	*3,703.95*	*1,498.73*	*1,602.13*	*603.09*
		$280,835.82	$237,571.04	$30,057.87	$13,206.91

Italic figures denote loss and deficiency.

HETCH HETCHY WATER SUPPLY AND UTILITIES ENGINEERING BUREAU

REPORT OF OPERATING EXPENSES FOR FISCAL YEAR 1940-1941

Account Number		Total For Year	Contributed by S. F. W. D.	Engineering Services Transferred to H. H. Power	Engineering Services Transferred to Muni. Ry
	PLANT OPERATING				
6000	Salaries and Wages	$23,269.83	$23,269.83	.....	.....
6010	Contributions to Retirement System	1,042.87	1,042.87	.....	.....
6030	Traveling Expenses	323.87	323.87	.....	.....
6050	Operating Supplies and Expense	991.81	991.81	.....	.....
6090	Miscellaneous Expense	356.05	356.05	.....	.....
6096	Rent of Warehouse	196.68	196.68	.....	.....
	REPAIRS AND MAINTENANCE				
7000	Buildings and Structures (Water)	1,917.16	1,917.16	.....	.....
7002	Buildings and Structures (Joint)	21,497.65	21,497.65	.....	.....
7010	Reservoirs, Dams and Intakes	6,438.85	6,438.85	.....	.....
7015	Waterways	4,739.18	4,739.18	.....	.....
7020	Pipe Lines	8,415.17	8,415.17	.....	.....
7030	Miscellaneous Equipment (Joint)	2,845.89	2,845.89	.....	.....
7035	Aqueduct Tunnels	4,175.43	4,175.43	.....	.....
7040	Roads and Trails (Mather to Moccasin)	12,563.12	12,563.12	.....	.....
7041	Roads and Trails (Moccasin to Tesla Portal)	2,626.88	2,626.88	.....	.....
7042	Roads and Trails (Tesla Portal to Irvington)	2,100.89	2,100.89	.....	.....
7050	Automotive Transportation Equipment (Water)	1,708.12	1,708.12	.....	.....
7051	Automotive Transportation Equipment (Joint)	1,549.99	1,549.99	.....	.....
7090	Miscellaneous Repairs and Maintenance	2,495.40	2,495.40	.....	.....
7092	Telephone Lines	7,560.78	7,560.78	.....	.....
7095	Hydrography	5,662.35	5,662.35	.....	.....

ADMINISTRATIVE AND GENERAL

8000	Salaries and Wages	56,985.59	56,985.59	$12,257.13	$12,257.13
8005	Contributions to Retirement System	2,274.34	2,274.34	492.62	492.62
8010	Services to Other Departments	1,524.27	1,524.27	.....	.....
8015	Professional Services	1,621.37	1,621.37	.....	.....
8020	Stationery, Office Supplies and Postage	1,830.52	1,830.52	313.50	313.50
8021	Office Expense	305.63	305.63	39.05	39.05
8025	Telephone and Telegraph	167.80	167.80	18.36	18.36
8030	Traveling Expenses	415.37	415.37	50.42	50.42
8035	Insurance	539.60	539.60	.....	.....
8040	Injuries and Damages	1,128.73	1,128.73	.....	.....
8051	Automobile Insurance Premiums	877.03	877.03	.....	.....
8061	Water Litigation and Damage Claims	24,321.72	24,321.72	.....	.....
8062	Legal Expenses—Water Rights Litigation	.....	.....	.....	.....
8063	Legal Expenses—Resisting Claims of Riparian Owners on Tuolumne River	2,149.86	2,149.86	.....	.....
8064	Legal Expenses—Transbay Suit	2,366.99	2,366.99	.....	.....
8095	Miscellaneous Expenses	.....	.....	.....	.....
8877	Administrative and General Expenses Transferred—Credit	.....	*26,342.16*	$13,171.08	$13,171.08

FIXED CHARGES

9010	Fee to U. S. Government (Raker Act)	30,000.00	30,000.00
9020	Taxes (Actually Paid)	9,124.95	9,124.95
	Total Expenditures for Operating Expenses	$248,111.74	$221,769.58

Italic figures denote loss and deficiency.

HETCH HETCHY WATER SUPPLY

RESERVE OF OPERATING ADVANCES FOR CONTRACTS, PURCHASE ORDERS AND OTHER COMMITMENTS

JUNE 30, 1941

Kd. Doc.	Number	Contractor or Vendor	Appropriation Number	H.H.W.S. Account	Total Amount	Reported as Expended	Retained from S. F. W. D.	Engineering Services Retained from H. H. Power	Engineering Services Retained from Muni. Ry.
P.O.	55384	Theo. J. Steiz & Co.	068.200.00	8021	$25.00	.....	$25.00	....	....
P.O.	56229	Pacific Tel. & Tel. Co.	068.200.00	6050	40.00	.....	40.00	....	....
P.O.	56230	Pacific Tel. & Tel. Co.	068.200.00	6050	16.00	.....	16.00	....	....
W.O.	068-55	Dept. of Public Works	068.200.02	8010	100.00	.....	50.00	$25.00	$25.00
P.O.	54230	Monroe Calculating Mach. Co.	068.200.02	8021	18.00	.....	9.00	4.50	4.50
P.O.	54231	Monroe Calculating Mach. Co.	068.200.02	8021	6.00	.....	3.00	1.50	1.50
W.O.	068-17	Hetch Hetchy Water Supply	068.212.01	3602-68-9	5,000.00	2,081.46	2,918.54	....	....
W.O.	068-35	Hetch Hetchy Water Supply	068.212.01	3602-68-45	661.00	194.18	466.82	....	....
W.O.	068-56	Hetch Hetchy Water Supply	068.212.01	3602-68-63	552.00	.....	552.00	....	....
P.O.	56695	Columbia Steel Co.	068.212.01	3602-68-10	525.30	.....	525.30	....	....
P.O.	56437	James Byrne	068.300.00	6050	23.54	.....	23.54	....	....
P.O.	56623	Walton N. Moore. D. G. Co.	068.300.00	6050	89.49	.....	89.49	....	....
P.O.	56624	Zellerbach Paper Co.	068.300.00	6050	12.41	.....	12.41	....	....
P.O.	56192	Sugarman Bros.	068.300.02	8020	.77	.....	.38	.20	.19
P.O.	56628	A. Carlisle & Co.	068.300.02	8020	18.54	.....	9.27	4.63	4.64
E.R.	068-6	M. J. Callaghan	068.640.01	8061	100.00	.....	100.00	....	....
O.F.W.	668-3/2316	Turlock Irrigation Dist.	668.500.08	2000-508	950.00	.....	950.00	....	....
P.O.	56133	Clark Motor Co.	{068.991.00 / 068.212.02}	7050	25.00	.....	25.00	....	....
P.O.	56237	Laurient & Niello	068.212.02	7050	50.00	.....	50.00	....	....
P.O.	56269	Tidewater Asstd.	068.212.02	7050	40.00	.....	40.00	....	....
P.O.	56271	Tidewater Asstd.	068.212.02	7050	70.00	.....	70.00	....	....
P.O.	56272	Tidewater Asstd.	068.212.02	7050	30.00	.....	30.00	....	....
P.O.	56273	Tidewater Asstd.	068.212.02	7050	30.00	.....	30.00	....	....
P.O.	56488	Bailey Meter Co.	068.212.02	7020	175.00	.....	175.00	....	....
W.O.	068-66	Dept. Public Works	068.640.01	8061	100.00	.....	100.00	....	....
P.O.	56268	Tidewater Associated Co.	068.640.01	8061	50.00	.....	50.00	....	....
Held Over—Resist Claims of Riparian Owners			968.604.03	8063	15,000.00	7,204.01	7,795.99	....	....
					$23,708.05	$9,479.65	$14,156.74	$35.83	$35.83
					9,479.65				
					$14,228.40				

POLK STREET LIGHTING

In center foreground, one of 51 new standards installed on Polk between Civic Center and Post.

ANNUAL REPORT
STREET AND BUILDING LIGHTING BUREAU

A. O. OLSON
Acting Manager

The Department of Street and Building Lighting was established in June, 1932, under the jurisdiction of the Public Utilities Commission. Prior to that time, under the old charter, this work had been handled through the Board of Supervisors and the various city departments.

In July, 1936, the Commission established the Electric Power Bureau and combined street and building lighting with Hetch Hetchy power operation and transportation engineering, under the management of Mr. Paul J. Ost. Upon the death of Mr. Ost early in 1940, the Electric Power Bureau was dissolved and the Street and Building Lighting Bureau again assumed independent operation under the personal management of Mr. E. G. Cahill, Manager of Utilities.

The activities of this department are divided into three major divisions, each covering an important civic function:

1. Street Lighting Operation and Maintenance.
2. Engineering and Construction.
3. Gas and Electric Supply.

Detailed accounts of the department's activities are given in this report under the above headings.

During the 1940-41 fiscal year, the city expended, exclusive of funds for energy used by city-sponsored W. P. A. projects, $1,739,669.05 for gas and electricity for municipal purposes and for street lighting operations, including the cost of supervision and engineering. This is made up of the following items:

Gas for Heat and Power	$102,966.07	
Electricity for Light and Power	827,183.28	
Total Gas and Electricity	$930,149.35	
Less Credits and Adjustments	2,875.10	
Net Gas and Electricity		$927,274.25
Street Lighting by Contract	$778,366.16	
Maintenance and Repairs by Contract	1,536.91	
Pole Space Rental	227.26	
Total Street Lighting		$780,130.33
Supervision and Engineering		32,264.47
Total Expenditures for Street and Building Lighting		$1,739,669.05

Street Lighting Operation and Maintenance:

The $780,130.33 shown to be the cost of street lighting covers operation and maintenance of all lighting equipment in streets and parks, as well as in tunnels, viaducts and underpasses.

These expenditures for street lighting are given in detail in Table I.

ASSEMBLING LUMINARIES

Part of the work involved in installation of new lighting system on Post Street, Mason to Van Ness.

In bidding to furnish street lighting services for the 1940-41 fiscal year, the Pacific Gas and Electric Company quoted rates identical with those in effect the year before.

Table III shows actual street lighting operating expenses since 1932. As indicated there were 24,504 lights in service on our streets at the close of the year, compared with 23,376 in 1939-40, an increase of 1,128, or 4.8 per cent. Of these new lights, 202 are city-owned, 705 are owned by the company, and 221 are part company- and part city-owned. Of the total 24,504, 20,856, or 85.11 per cent, are wholly or in part owned by the company, and 3,648 are wholly owned by the city.

A large number of the 705 company-owned lights were installed as part of the general modernization of the street lighting system started in 1939. In addition 2,391 lights were installed to replace old equipment which had become obsolete and ineffective by modern standards of lighting. In the course of this modernization, a total of 1,683 new lights will be added, 5,170 old lights will be replaced with modern units, and a large number of lights will be moved in order to secure better uniformity and more even distribution of light. At the present rate of progress, the entire lighting system will be brought to a modern standard by the end of the next fiscal year. Scarcity of equipment and materials, caused by national defense needs, may, however, retard progress. So far the work has progressed without material hindrance.

Incident to these rearrangements and additions, the street lighting record system is being revised. The magnitude of this work is best realized when it is recalled that a W. P. A. force of from eight to twenty men worked four years to make the initial inventory and records. The revision of these records was begun early in the fiscal year and is currently progressing at a rate equal to the physical work of modernization. New maps are being drafted which show data necessary for efficient and economical operation of the street lighting system, as well as the location of each part of the city's extensive street lighting investment. These maps will therefore also serve as a key to the inventory of the city-owned street lighting system.

Engineering and Construction:

Currently the city-owned street lighting equipment is valued at $1,156 582. A year ago the city's street lighting plant was worth $1,053,324. Thus additions valued at $103,258 have been made to the lighting system during the last year. Year-by-year value of additions and betterments to the city-owned lighting system, as well as the source from which they have been financed, are shown in Table V.

The additions for the year are shown in Table IV, from which it will be noted that private property owners have installed and deeded to the city, lighting improvements valued at $42,082. Improvements costing $11,260 were financed by the city and made through public contract. Equipment valued at $49,916 was installed by city-sponsored W. P. A. projects.

Funds have not been available for the installation of complete lighting systems on streets reconstructed and declared underground districts during the year.

Only conduits and foundations for the standards have therefore been included in the work of repaving such streets, leaving the remainder of the work to be done by the Pacific Gas and Electric Company under the provisions of the annual contract.

ERECTING ELECTROLIERS

New lights were installed on Post Street, from Mason Street to Van Ness Avenue.

The Company has had such work done by contract in accordance with plans and specifications issued by this bureau. Table VI is a resumé of work so performed by the Company last year, and shows that they have expended $79,344 in this manner for additions and betterments to their system.

In addition to street lighting improvements thus actually completed, the following improvements are under construction or in course of planning:

	No. Lights	Type of Electrolier
Bush Street—		
Market Street to Van Ness Avenue	137	22′ Metal
Mission Street—		
Third Street to South Van Ness Avenue	102	22′ Metal
Fell Street—		
Baker Street to Stanyan Street	26	24′ Concrete
Brannan Street—		
Embarcadero to Division Street	58	20′ Metal
Third Street—		
Mariposa Street to Custer Street	132	23′ Metal
Lombard Street—		
Van Ness Avenue to Broderick Street	121	23′ Concrete
Second Street—		
Market Street to Howard Street	17	20′ Metal

During the year plans and specifications for street lighting improvements valued in excess of $250,000 have been prepared by the bureau, and the inspection of all street lighting construction has been handled either directly or under the supervision of this department.

Many of the improvements made have been financed by owners of new real estate tracts and property-owner groups. The department has assisted such groups in solving their lighting problems and has furnished them with engineering service without charge, in the interest of accomplishing the greatest good for both the city and the individual taxpayer at the lowest possible cost.

The improvement of the lighting in Maiden Lane is a typical example of such cooperation between taxpayer groups and the department. Progressive and enterprising merchants, members of the Maiden Lane Association, assessed themselves for the cost of new lighting in their street. The new lights—which have been deeded to the city—were installed by contract according to plans and specifications prepared by this department. Because the property owners were willing to pay the construction cost, it was possible to treble the illumination in this street without materially increasing the city's operating cost.

Underground-connected lights have likewise been installed by the owners during the course of other street improvements in those residential developments where the electric distribution facilities have been installed underground or otherwise kept off the streets. Such lights, which constitute a mutual benefit to the city and property owners, become the property of the city.

During the past decade great progress has been made in all branches of engineering. In the field of illuminating engineering, new lighting media and equipment have been developed which radically differ from the old types. These technological improvements of the lighting engineer's tools have brought about a new lighting technique.

To ascertain how well lighting installations made ten years ago meet the requirements of today's greater traffic volume and higher speed, a study was made of the accident records of some of the city's important arterials. Typical of the findings was the record of Bay Shore Boulevard. This study is of particular interest because it covers the period during which the size of the lamps in these lighting units was changed from 6,000 to 10,000 lumens.

Bay Shore Boulevard, which is a 100-foot wide undivided roadway three miles in length, was constructed in 1930 and remained unlighted for several months. When it was lighted in 1931, national publicity was given to the reduction in accident rates which resulted therefrom.

This boulevard is lighted by 20-foot single-light upright standards spaced in an opposite arrangement on 125-foot centers. Originally, 10,000-lumen lamps and A-Sym-Etrick dome refractors were installed. Early in 1932, because of the depression, the lamps were changed to 6,000-lumen. In 1940 the lamps were again restored to their original 10,000-lumen rating and the accident records for 14 months before the change, as well as for 7 months after the change, were carefully checked. Of the 320 accidents that occurred during the entire 21-month period, 160, or 50 per cent, occurred during hours after dark. Of these 160 accidents, 37, or 23 per cent, occurred after the change, which was 33 per cent of the total time period covered. The accidents were thus reduced from an average of 8.8 per month before the change to 5.3 per month after the change, a reduction of 40 per cent. Five of the total number of accidents resulted in fatalities, one only of which occurred during the seven months after the change.

The following tables contain additional detail on the nature of the night accidents, as well as a breakdown between intersectional and mid-block locations:

	Before Change*		After Change†		Total Period	
Type of Accident	No. of Accidents	Per Cent of Total	No. of Accidents	Per Cent of Total	No. of Accidents	Per Cent of Total
Mid-Block Accidents....	43	27.00	10	6.25	53	33.00
Intersectional Accidents.	67	42.00	22	13.75	89	56.00
Pedestrian Accidents ...	13	8.00	5	3.00	18	11.00
Fatal Accidents.....	4	....	1	....	5	....
All Accidents	123	77.00	37	23.00	160	100.00

*14-month period—February, 1939, to April, 1940—67% of total.
†7-month period—April, 1940, to October, 1940—33% of total.

In the following table the night accidents before and after the change of lamps have been expressed in per cent of the corresponding daytime accidents adjusted to equal traffic density and time period.

Type of Accident	Daytime Per Cent of Total	Night (Before Change) Per Cent of Total	Night (After Change) Per Cent of Total
Mid-Block	19.0	80.5	40.0
Intersectional	74.0	125.0	88.5
Pedestrian	7.0	24.0	20.5
Fatal	0.0	8.0	2.7
All Types	100.0	229.5	149.0

In fairness it should be pointed out that the seven months after the change do not cover the winter season. This fact has undoubtedly affected the results of the

THE NEW AND THE OLD

Antiquated lights are being removed in favor of modern units installed by Maiden Lane Association.

study to some extent, although, because of climatic conditions, less difference between winter and summer driving exists in San Francisco than in most parts of the country. Because of this recognized slight difference, however, the study will be continued to cover similar periods before and after the change.

The improvement in visibility which resulted from the increased lamp size was not in proportion to the increased lumen output, but the encouraging reduction in the number of accidents, together with the still high accident rate, has prompted additional study. The cost of further increase of lamp size in the present equipment does not seem justifiable.

Plans for the reconstruction of this lighting system have been made and $35 000 was requested in the 1941-42 budget. This request was not allowed, however. It is hoped that modern traffic safety lighting may be economically possible at an early date on this very important thoroughfare.

Construction of the floodlighting system for Funston Playground, which this bureau designed in 1939-40 for the Recreation Commission, was started during the year. When completed it will provide lighting for two baseball fields, a softball field, four tennis courts, two basketball courts, and a volleyball court, as well as lighting for horseshoe pitching, practice golf and general outdoor play. Two hundred and forty floodlights, rated at a total of 341 kilowatts, are being installed. A primary 4,000-volt underground distribution system is being constructed to feed these floodlights, which will be mounted on four 100-foot and four 70-foot lattice steel towers and on 36 tubular steel poles. The installation is being made by the W. P. A. to the extent that they have men available. The remainder of the work is being performed under contract.

Besides directing the W. P. A. and inspecting the work, all specifications for work contracts, as well as for purchase of materials, have been prepared by this department. It was initially estimated that the contract cost of the whole installation would be $50,000. To cover the cost of materials and minor construction contracts, $35,000 has been appropriated from the city's W. P. A. sponsorship fund.

Gas and Electric Supply:

Table VII summarizes the cost and quantity of gas and electricity used for municipal purposes, by departments. It will be noted that 556 615 600 cubic feet of gas and 66 006,406 kilowatt hours of electricity were purchased through 394 gas and 739 electric accounts, at a total cost of $927,274.25. Not included in this total is $344.53 for steam purchased for the Board of Education. With the exception of two small electric accounts with the Modesto Irrigation District, all accounts are with the Pacific Gas and Electric Company.

The 1,133 accounts have been segregated according to schedule in Tables VIII and IX, which show the average unit cost of the commodity bought under each schedule.

The annual contract with the Company stipulates that published rate schedules may be applied to all gas and electric accounts, and that, at the option of the City, flat rates of 2¾ cents per kilowatt hour for lighting and 2 cents per kilowatt hour for power may be applied to electric accounts within the city limits.

In order to exercise this option and otherwise judiciously apply the technical features of the multiplicity of rate schedules, a constant physical survey of all

AQUATIC PARK MUNICIPAL PIER
Street lighting incorporated in the design of special improvement.

CALHOUN STREET ON TELEGRAPH HILL
Street lighting incorporated in the design of special improvement.

SUNNYDALE HOUSING PROJECT
Street lighting installed by Housing Authority from Street Lighting Bureau plans.

POTRERO HILL HOUSING PROJECT
Plans for street lighting for this development also prepared by Street Lighting Bureau.

city premises is necessary. Detail data concerning each account, such as meter location, type of service, connected load, operating cycle and load factor are maintained to insure the most economical purchase of energy. Economies are often suggested by analyses of data collected through periodic surveys. By combining services or loads, or otherwise altering the physical plant, cheaper rates may often be applied. Recommendations for such changes are made to the departments concerned and in some cases when departmental funds are not available, funds allocated to this Bureau for this purpose are used.

Some changes of this nature made in the past, and the resulting operating economy, are reviewed below:

1) At the Department of Public Works yard a multiplicity of accounts was combined in connection with the general rewiring, causing no extra cost to the department but lowering the cost of electricity $83.88 per year.

2) By spending $327.00 to combine the light and power services at County Jail No. 2, the operating cost was reduced $899.54 per year.

3) The installation of load limiting interlocks on some of the power equipment at the Opera House at a cost of $75.00 reduced the operating cost $300.00 per year.

These changes are typical of many that have been made and the economies effected will continue in the future. A number of others, equally lucrative, have been recommended but due to lack of funds or for other reasons have not yet been effected.

As this bureau has no control over the use of gas and electricity by the departments, it is sometimes found at the end of the year that the most suitable rate has not been applied to an account. With the whole year's experience at hand at the close of the year, the most favorable rate is more readily determined. In such cases application is made to the Pacific Gas and Electric Company for rebilling and refund, under the provisions of the annual contract.

At the close of the fiscal year 27 accounts were thus requested rebilled, resulting in a refund of $2.577.71. Billing and meter errors resulted in credits of $64.53 and $232.86, respectively. These items, totaling $2,875.10, are shown as credits and adjustments in Table VII.

In addition to the regular departmental bills, the following miscellaneous utility charges were referred to this department for check and verification:

1) **Water Department.** Reimbursement of 11 water right holders in southern Alameda County for power pumping charges—$775.58.

2) **Public Welfare Department.** Monthly gas and electric bills for 67 indigent relief clients, totaling $1,104.81, for the year.

3) **W. P. A. Projects.** Gas and electricity used on city-sponsored projects, totaling $7,689.43, were purchased through 46 accounts.

4) **San Francisco Airport.** Rebilling of electric energy used by tenants. The gross collections amounted to $1,835.80, of which $918.20 is net profit to the airport for this resale.

Inter-departmental contacts in the interest of lower operating cost have often resulted in requests for engineering services on allied subjects. Typical cases of this kind are enumerated below:

Department	Location	Nature of Work
deYoung Museum	Golden Gate Park	Installation of artificial lighting and increasing the main electric service.
Fire	Boat No. 1	Increase service due to additional lighting demanded by Government, as sabotage protection.
Fire	Cos. Nos. 35 and 49	Combustion test on boilers converted from oil to gas fuel.
Health	Alemany Hospital	Combustion test on boiler converted from oil to gas fuel.
	Health Center	Administration Office lighting.
Park	Fleishhacker Playfield, Harding Park, Golden Gate Park	Efficiency test on 5 motor-driven pumps.
	Diorama House	Electric layout.
	Sharp's Park	Electric specifications and layout for new drainage pump.
Public Works	City Hall	Plans for rotunda lighting for Dahlia Show.
Recreation	Folsom and North Beach Playgrounds	Preliminary plans and specifications for flood-lighting.
Education	Junior College	Lamp report; complaint of short life. Power cost report by combination of services and change of lighting fixtures.
	Gompers School	Service and feeders; changes necessitated by National Defense classes.
	Commerce High	Service and feeder changes necessitated by National Defense classes.
	Abraham Lincoln High School	Studies of gas vs. oil for heating.
War Memorial	Civic Center	Interior court lighting and Van Ness Avenue facade lighting.
Public Welfare	335 Fell Street	Plans and estimate for rewiring and lighting of main office.
W. P. A.	1360 Mission Street	Plans for main service alterations and rewiring of leased building for N. Y. A. trade school.

The maintenance of good relations with other departments, as well as with the utility company, is of prime importance if the best interests of the city are to be served. The bureau has therefore furnished engineering service of the nature outlined above to other departments without charge.

The most economical operation of the electrical system of any institution depends on the appreciation and application by the designer of engineering elements affecting the ultimate operating cost. Unfortunately, these elements are not always appreciated and are often neglected in favor of lower construction cost. Such a policy has been found shortsighted in many cases, where the slightly higher construction cost of a properly designed installation has been paid many times over through the higher operating cost of the actual installation.

It is hoped that the bureau may serve more frequently as consultant in the future on such matters while plans are being prepared, rather than after the completed installation is in operation.

Administration:

The table of expenditures on Page 177 shows that $32,264.47 was spent for supervision and engineering, which covers the administrative cost of the bureau. This is 1.8 per cent of the department's total expenditures and includes the engineering and inspection of construction work costing over $300,000.

LAKESIDE SUBDIVISION LIGHTING
Concrete standards and appurtenances worth $13,620, put in by owners, deeded to City.

Bureau Personnel

A. O. Olson.....Electrical Engineer and Acting Manager
B. W. Grethel.....Electrical Engineering Designer
G. W. Dolen.....Street Lighting Inspector
B. A. Devine.....Electrical Engineering Inspector
E. K. Whelpley.....Electrical Engineering Inspector
E. W. Balzer.....Electrical Engineering Inspector
W. J. Laib.....Electrical Engineering Draftsman
W. F. Eisenberg.....Mechanical Engineering Draftsman
Grace Seaman.....Map Clerk
R. H. Sterner.....General Clerk-Stenographer
E. W. Jackson.....General Clerk-Stenographer
G. B. Smith.....Bookkeeper

Aside from maintaining a simple ledger of all gas and electric accounts, the bookkeeping of the department is handled by the accounting division of the Public Utilities Commission under the direction of Mr. George Warren.

A new procedure in the collection of bills for repairs to city-owned lighting equipment damaged in traffic accidents was established early in 1940. All cases remaining unsettled 90 days after the accident are transferred to the Bureau of Delinquent Revenue for collection. This procedure has resulted in a better follow-

BEFORE RELIGHTING
Ninth Street, between Market and Division, before installation of 45 modern lights.

AFTER RELIGHTING
Same scene as above, showing elimination of glare and spread of illumination.

DAY VIEW
Fourth Street, Market to Townsend, was reconstructed and relighted with 61 standards.

NIGHT VIEW
Same scene as above, showing effect of relighting with use of 6000-lumen lamps.

SINGLE-LIGHT CONCRETE STANDARDS
Walks at Aquatic Park illuminated by lights installed in W. P. A. project.

up and earlier settlement of outstanding claims. A statement is included in this report under Table II, showing the status of these accounts at the beginning and the close of the year.

TABLE I

COST OF STREET LIGHTING OPERATIONS—1940-41

Contractual Service:		
Gross Street Lighting Expenses		$794,423.32
Less Market Street Railway Portion	$12,576.00	
Outages	3,481.16	16,057.16
Net Street Lighting		$778,366.16
Replacements and Repairs:		
Replacements and Repairs	$3,132.71	
Less Collection for Damage	1,595.80	1,536.91
Pole Space Rentals		227.26
Total Street Lighting Expenditures		$780,130.33

SPECIAL TRAFFIC SAFETY LIGHTING
Installed under Department of Public Works contract at Market and Clayton Streets.

TABLE II

STREET LIGHTING DAMAGE CLAIMS—FISCAL YEAR 1940-1941

		In Hands of St. Ltg. Dept.		In Hands of Bur. Del. Revenue		Total	
		Cases	Amount	Cases	Amount	Cases	Amount
July 1, 1940, Balance		1	+$92.00	52	+$4,986.42	53	+$5,078.42
New Claims	$2,861.09	25	+2,961.09	..	.....	..	+2,961.09
Adjustment, Old Claim	100.00	..	.....	..	.....	..	.....
			$3,053.09				
Collections (Installments)		14	—$981.18	14	—614.62	28	—1.595.80
Transferred to Bur. Del. Revenue		18	—2,071.91	18	+2,071.91	..	0
			$3,053.09				
Cases Abandoned		..	.....	22	—2.171.11	22	—2.171.11
Cases Compromised		..	.....	1	—96.72	1	—96.72
June 30, 1941, Balance		0	0	37	$4.175.88		$4,175.88
Not included in above are cases not billed; estimated amounts as follows:							
July 1, 1940		4	$412.00	..	.....	4	$412.00
June 30, 1941		1	65.50	..	.....	1	65.50

TABLE III

STREET LIGHTING EXPENDITURES FOR THE LAST TEN YEARS

Fiscal Year	Amount of Appropriation	No. Lights at Close of Year	Expenditure	Per Cent of Taxes	Avg. Cost per Lamp per Yr.	Construction
1931-32	$865,000.00	19,500	$855,289.34	...	$45.60	$36,622.00
1932-33	850,000.00	17,369	762,933.84	3.10	43.93	30,110.00
1933-34	780,000.00	18,115	696,126.56	2.48	38.43	48,391.00
1934-35	766,000.00	20,383	698,701.94	2.32	34.28	103,458.00
1935-36	699,600.00	20,060	677,128.37	2.24	33.76	40,558.00
1936-37	728,000.00	20,576	674,869.86	2.15	32.79	287,384.00
1937-38	735,000.00	21,378	711,737.60	2.21	33.29	165,010.00
1938-39	735,000.00	22,028	728,786.00	2.18	33.08	75,378.00
1939-40	760,000.00	23,376	727,167.60	2.18	31.10	106,798.00
1940-41	790,000.00	24,504	780,130.33	2.43	31.82	103,258.00
1941-42	815,000.00	.....	.....	...	....	.....

TABLE IV

NEW CITY-OWNED STREET LIGHT CONSTRUCTION

COMPLETED DURING 1940-41

Location—	No. of Lights	Financed by—	Value
Installed by Private Contract:			
Miraloma Park	15	Tract Owner	$5,260.00
First Street	2	Property Owners	1,070.00
Geneva Terrace	3	Tract Owner	1,120.00
Lakeshore Park	16	Tract Owner	5,288.00
Lakeside Subdivision	45	Tract Owner	13,620.00
Maiden Lane	4	Property Owners	374.00
McLaren Park Terrace	3	Tract Owner	1,130.00
Potrero Hill Terrace	37	S. F. Housing Authority	14,220.00
	125		$42,082.00
Installed by City Contract:			
Portola Drive	1	Dept. of Public Works	400.00
Polk Street	Conduit Only	Dept. of Public Works	580.00
Post Street	Conduit and Pullboxes Only	Dept. of Public Works	3,450.00
Ninth Street	Conduit and Pullboxes Only	Dept. of Public Works	6,830.00
	1		$11,260.00
Installed by W. P. A.:			
Aquatic Park	59	W. P. A. and Street and Bldg. Lighting Bureau	16,110.00
Aztec Street and Coso Avenue	8	W. P. A.	2,566.00
Bryant Street	Conduit and Foundations Only	W. P. A.	520.00
Fourth Street	Conduit and Foundations Only	W. P. A.	7,800.00
Howard Street	Conduit and Foundations Only	W. P. A.	5,580.00
Juniper Street	Conduit and Foundations Only	W. P. A.	490.00
King Street	Conduit and Foundations Only	W. P. A.	790.00
Mission and Spear Streets	Conduit Only	W. P. A.	1,070.00
Polk Street	Conduit and Foundations Only	W. P. A.	5,730.00
Post Street	Conduit and Foundations Only	W. P. A.	9,260.00
	67		$49,916.00
Grand Total	193		$103,258.00

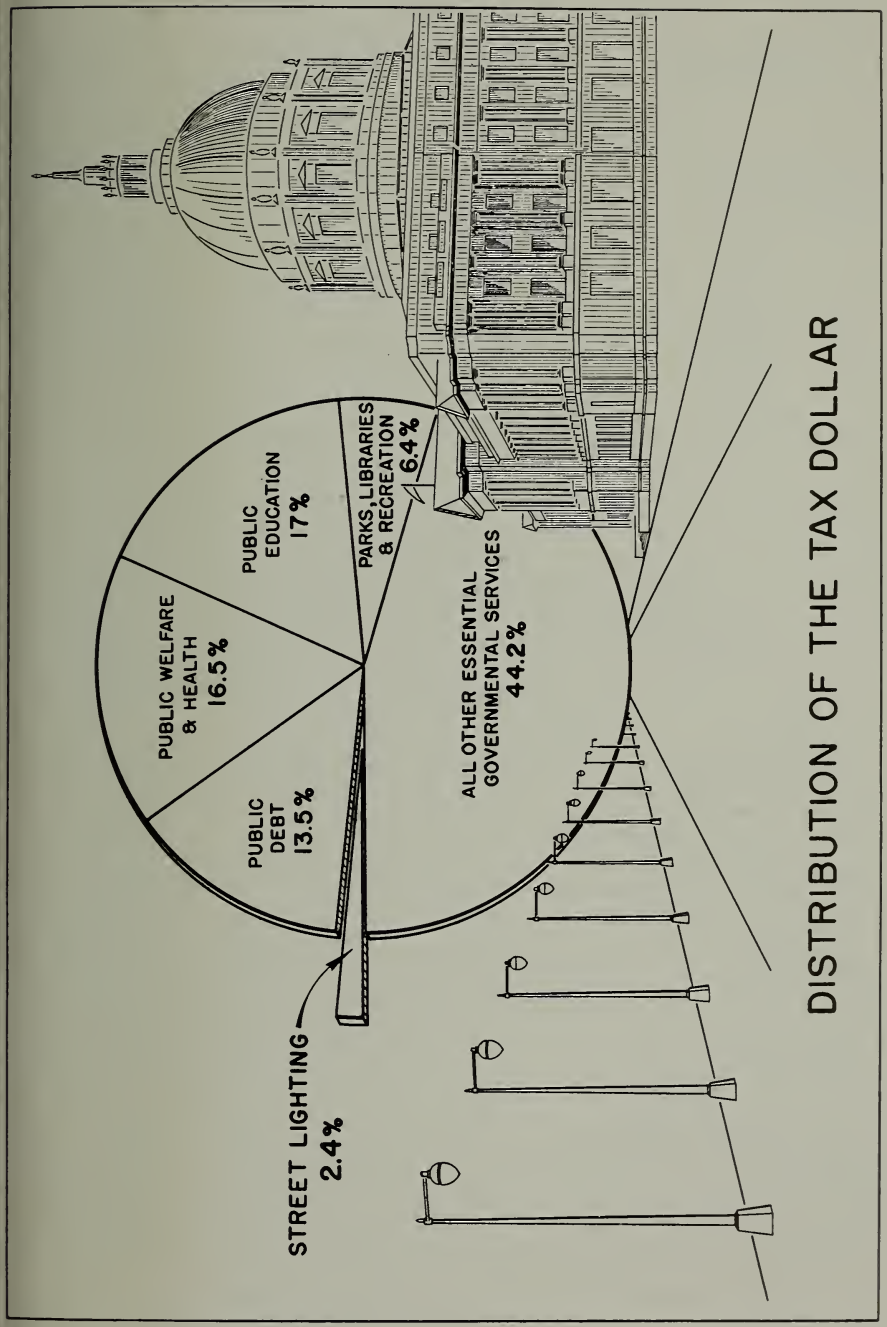

DISTRIBUTION OF THE TAX DOLLAR
PUBLIC WELFARE & HEALTH 16.5%
PUBLIC EDUCATION 17%
PARKS, LIBRARIES & RECREATION 6.4%
ALL OTHER ESSENTIAL GOVERNMENTAL SERVICES 44.2%
PUBLIC DEBT 13.5%
STREET LIGHTING 2.4%

TABLE V

INVESTMENT IN CITY-OWNED STREET LIGHTING BY YEARS

	City Funds		Federal Funds		Property	
	D. P. W.	P. U. C.	W. P. A.	P. W. A.	Owners	Total
Before January 1, 1932	$141,707	.....	.....	.....	$17,908	$159,615
January 1, 1932-July 1, 1932	36,622	.....	.....	.....	.....	36,622
Fiscal Year 1932-33	30,110	.....	.....	.....	.....	30,110
1933-34	48,391	.....	.....	.....	.....	48,391
1934-35	102	$96,811	.....	.....	6,545	103,458
1935-36	8,072	14,114	$11,553	.....	6,819	40,558
1936-37	24,500	180,850	47,321	$18,444	16,269	287,384
1937-38	14,083	61,301	77,212	.....	12,414	165,010
1938-39	12,096	6,792	33,525	.....	22,965	75,378
1939-40	7,072	10,353	75,380	.....	13,993	106,798
1940-41	10,910	5,380	45,376	.....	41,592	103,258
Total, July 1, 1941	$333,665	$375,601	$290,367	$18,444	$138,505	$1,156,582

TABLE VI

MAJOR STREET-LIGHTING IMPROVEMENTS

FINANCED BY PACIFIC GAS AND ELECTRIC COMPANY

Location—	St. & Bldg. Lighting Spec. No.	No. of Lights	Contract Cost	Material Cost	Total Cost
Howard Street, Third St. to Ninth St.	50	64	$16,906	$6,990	$23,896
Harriet Street, Howard St. to Folsom St.	51	3	861	20	881
Post Street, Webster St. to Pierce St.	52	25	2,130	1,860	3,990
Polk Street, Turk St. to Post St.	53	43	6,212	6,980	13,192
Fourth Street, Howard St. to Townsend St.	57	34	4,563	3,410	7,973
Ninth Street, Market St. to Division St.	58	45	7,377	5,770	13,147
Post Street, Van Ness Ave. to Webster St.	59	38	3,536	2,830	6,366
Polk Street, McAllister St. to Turk St.	60	8	1,954	1,280	3,234
Fourth Street, Market St. to Howard St.	61	22	3,145	3,520	6,665
Total		282	$46,684	$32,660	$79,344

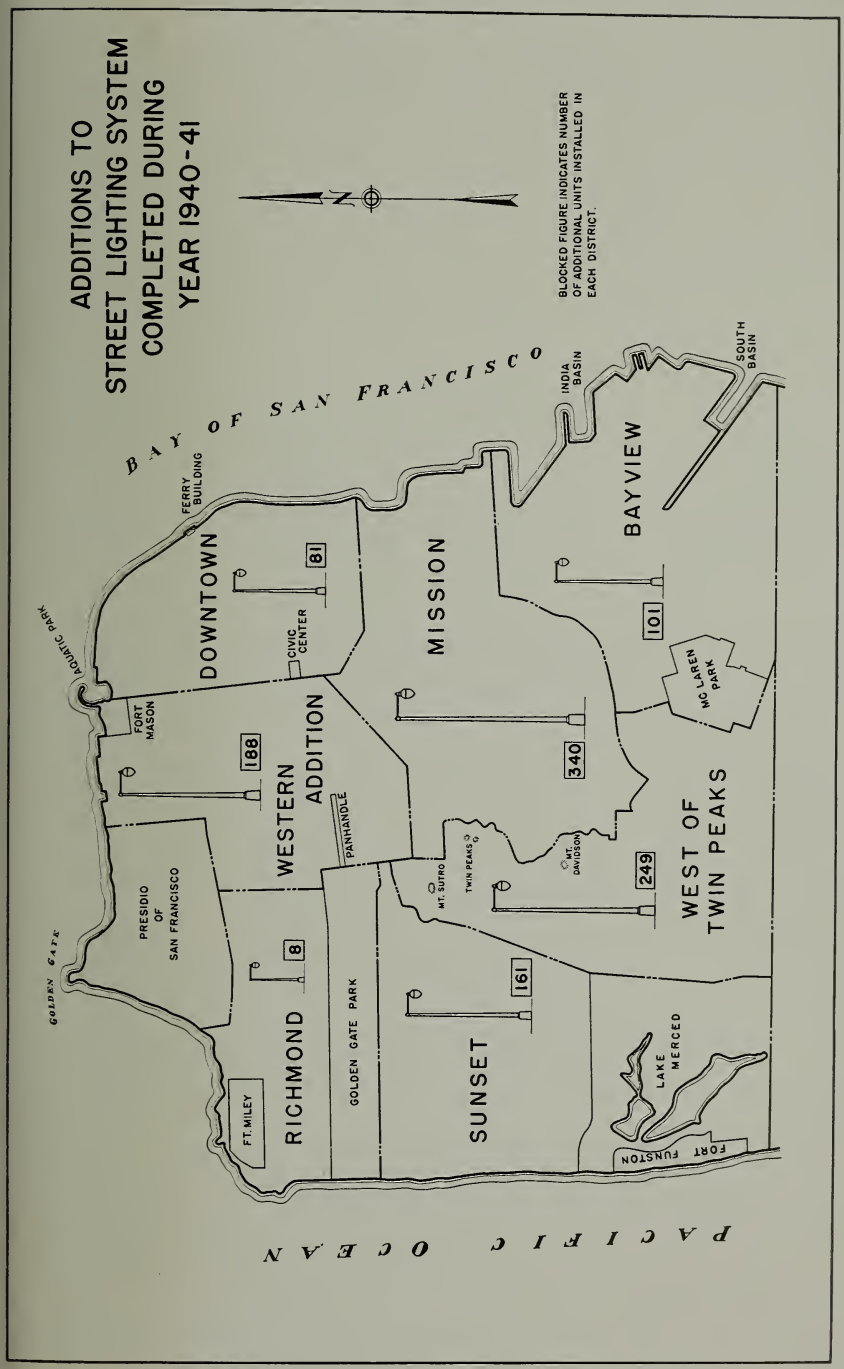

ADDITIONS TO
STREET LIGHTING SYSTEM
COMPLETED DURING
YEAR 1940-41
N
BLOCKED FIGURE INDICATES NUMBER OF ADDITIONAL UNITS INSTALLED IN EACH DISTRICT.
BAY OF SAN FRANCISCO
FERRY BUILDING
INDIA BASIN
SOUTH BASIN
AQUATIC PARK
DOWNTOWN
81
CIVIC CENTER
MISSION
BAYVIEW
101
MC LAREN PARK
FORT MASON
188
WESTERN ADDITION
PANHANDLE
340
WEST OF TWIN PEAKS
MT. SUTRO
TWIN PEAKS
MT. DAVIDSON
249
PRESIDIO OF SAN FRANCISCO
8
161
GOLDEN GATE
GOLDEN GATE PARK
RICHMOND
SUNSET
LAKE MERCED
FT. MILEY
FORT FUNSTON
PACIFIC OCEAN

TABLE VII

DEPARTMENTAL GAS AND ELECTRICITY

CONSUMPTION AND EXPENDITURES—1940-41

CONSUMPTION					EXPENDITURES					
Electricity		Gas								
No. of Accts.	KWH	No. of Accts.	Cu. Ft.		Electric	Gas	Total	Credit Adjusts.	Int.-Dept. Transfers	Total
4	485,344	3	3,626,000	Airport	$6,980.71	$1,236.55	$8,217.26	.....	.....	$8,217.26
7	497,220	1	42,600	Auditorium	7,967.70	28.74	7,996.44	.....	—$1,647.98	6,348.46
3	59,416	1	283.600	Detention Home	1,339.92	136.29	1,476.21	.....	.....	1,476.21
5	97,902	..	.....	deYoung Museum	2,083.78	.....	2,083.78	.....	.....	2,083.78
5	69,672	2	751,800	Department of Electricity	1.455.33	329.85	1,785.18	.....	.....	1,785.18
62	443,035	97	25,818,600	Fire Department	11,888.50	11,484.79	23,373.29	$32.68	.....	23,340.61
24	732,915	24	344,690,800	Department of Public Health	15,109.43	48,540.95	63,650.38	17.16	.....	63,633.22
5	153,802	..	.....	Legion of Honor	3,092.08	.....	3,092.08	.....	.....	3,092.08
26	551,166	23	3,577,000	Library	10,597.37	1,720.41	12,317.78	4.29	.....	12,313.49
14	43,104,785	3	971,800	Municipal Railway	490,470.60	450.89	490,921.49	160.81	.....	490,760.68
84	2,346,540	24	11,490,600	Park Department	36,345.23	3,161.35	39,506.58	343.86	.....	39,162.72
67	271,727	13	3,304,800	Police Department	12,022.58	1,560.47	13,583.05	153.00	+311.97	13,742.02
33	1,335,422	6	1,368,000	Department of Public Works	19,813.69	546.19	20,359.88	.....	.....	20,359.88
9	109,856	3	1,012,200	Purchasing Department	2,468.45	442.10	2,910.55	.....	.....	2,910.55
8	1.939,380	..	.....	Public Buildings Department	26,397.19	.....	26,397.19	.....	+1,647.98	28,045.17
60	376,957	32	2,637,600	Recreation Department	8,881.59	1,369.21	10,250.80	95.85	.....	10,154.95
6	7,477	2	9,600	Registrar	209.46	21.00	230.46	3.74	.....	226.72
245	3,373,974	142	22,628,800	Schools	72,910.33	10,496.58	83,406.91	1,544.68	.....	82,206.76*
2	547,040	3	27,332,400	Sheriff	7,608.48	4,955.55	12,564.03	40.00	—311.97	12,212.06
2	1,097,800	3	16,174,100	War Memorial	10.207.42	3,164.34	13,371.76	.....	.....	13,371.76
..	.....	..	.....	Art Museum	6,755.83	.....	6,755.83	.....	.....	6,755.83
56	8,338,039	11	90,132,300	Water Department	70,810.03	13,042.08	83,852.11	448.62	.....	83,403.49
5	64,924	1	763,000	Public Welfare Department	1,554.42	278.73	1,833.15	30.41	.....	1,802.74
7	2,013	..	.....	Hetch Hetchy	213.16	.....	213.16	.....	.....	213.16
739	66,006,406	394	556,615,600		$827,183.28	$102,966.07	$930,149.35	$2,875.10	0	$927,618.78

*Includes $344.53 expended for steam and charged to Board of Education.

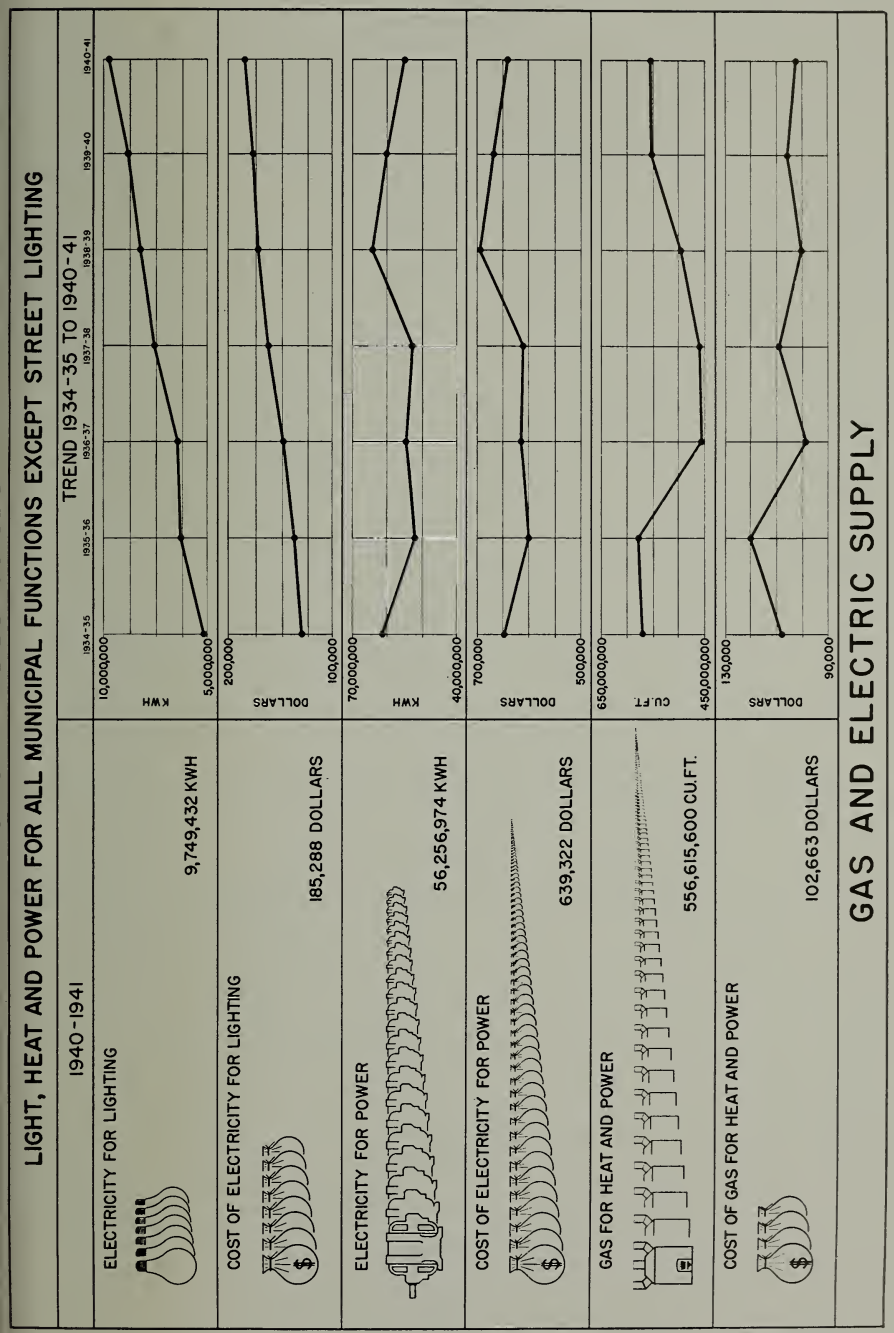

LIGHT, HEAT AND POWER FOR ALL MUNICIPAL FUNCTIONS EXCEPT STREET LIGHTING
1940-1941
ELECTRICITY FOR LIGHTING
9,749,432 KWH
COST OF ELECTRICITY FOR LIGHTING
185,288 DOLLARS
ELECTRICITY FOR POWER
56,256,974 KWH
COST OF ELECTRICITY FOR POWER
639,322 DOLLARS
GAS FOR HEAT AND POWER
556,615,600 CU.FT.
COST OF GAS FOR HEAT AND POWER
102,663 DOLLARS
TREND 1934-35 TO 1940-41
1934-35
1935-36
1936-37
1937-38
1938-39
1939-40
1940-41
10,000,000
5,000,000
KWH
200,000
100,000
DOLLARS
70,000,000
40,000,000
KWH
700,000
500,000
DOLLARS
650,000,000
450,000,000
CU.FT.
130,000
90,000
DOLLARS
GAS AND ELECTRIC SUPPLY

TABLE VIII

PURCHASE OF ELECTRICITY BY SCHEDULES

For Lighting and Miscellaneous Use

Schedule	No. of Accounts	KWH	Cost	Cost Per KWH
$0.0275	308	950,204	$26,142.54	$0.0275
L-1	99	2,198,215	53,917.22	.0245
L-3	2	76	16.40	.2158
L-4	1	580	26.71	.0461
L-5	2	38,056	1,236.00	.0325
L-6	11	102,436	3,377.38	.0330
L-21	1	140	10.84	.0774
L-34	4	125,142	1,525.56	.0122
L-35	2	8,948	248.09	.0277
C-1	26	5,611,162	88,596.18	.0158
C-6	2	618,212	8,368.58	.0135
D-1	6	35,202	556.25	.0158
D-5	3	7,772	201.53	.0259
D-6	5	22,952	504.46	.0220
DA-6	2	30,327	554.29	.0183
D-21	1	8	6.23	.7788
Total	475	9,749,432	$185,288.26	$0.01901

For Power

$0.02	200	1,631,657	$32,599.23	$0.0200
P-1	9	143,270	2,648.39	.0185
P-2	1	28	21.11	.7539
P-3-13	9	1,419,026	18,338.03	.0129
P-7	2	207,560	5,013.00	.0242
P-9	1	42,895,785	486,711.08	.0113
P-15	13	2,514,380	35,847.31	.0143
P-17	1	18,408	267.00	.0145
P-30	1	7,212,800	50,114.64	.0069
H-1	9	214,020	2,768.27	.0129
P-8	1	40	10.97	.2743
	247	56,256,974	$634,339.03	$0.011275
Special	17	.....	4,983.83	.....
Total	739	66,006,406	$824,611.12	$0.01249

TABLE IX

PURCHASE OF GAS BY SCHEDULES

For General Use

Schedule	No. of Accounts	Cubic Feet	Cost	Cost Per 100 Cu. Ft.
G-1	346	59,903,800	$28,008.13	$0.0498
G-2	10	3,776,800	1,677.59	.0444
G-6	1	316,500	169.99	.0537
	357	63,997,100	$29,855.71	$0.0467

General Heating

GH-1	25	39,604,700	$11,326.99	$0.0286
GH-2	4	17,303,800	4,301.69	.0249
	29	56,908,500	$15,628.68	$0.0275

For Special Heat and Power

GS-1	5	410,769,000	$52,881.19	$0.0129
GS-2	1	24,941,000	3,997.55	.0160
Special	2	.....	300.00	.....
	8	435,710,000	$57,178.74	$0.0131
Total	394	556,615,600	$102,663.13	$0.0184

SAN FRANCISCO AIRPORT

View of San Francisco Airport from control tower in Administration Building

SAN FRANCISCO AIRPORT DEPARTMENT

B. M. DOOLIN

Manager

B. M. DOOLIN
Manager, San Francisco Airport

Foreword:

At San Francisco Airport, the municipal air terminal of the City and County of San Francisco, the fiscal year 1940-41 was highlighted by record-breaking activity in airline transport traffic, by the signing of a 20-year lease with United Air Lines Transport Corporation whereby this company's Western Division Headquarters will be moved to San Francisco Airport during the latter part of 1941, by formal dedication of the new United States Coast Guard Base, and by major physical improvements of the airport proper.

In the various branches of local flying, apart from transport, great activity was likewise shown, with hangar space remaining at a premium and air traffic increasing to such an extent that additional personnel were required in the air-traffic control tower. Total landings and take-offs for the fiscal year in all branches of flying amounted to 178,000.

The Civilian Pilot Training Program of the Federal Government has been largely instrumental in bringing about increases in private flying, but as is commonly known, the ever-mounting interest in aviation has brought about skyrocketing tendencies in all branches of the aviation industry.

Increases in Airline Traffic Summarized:

A brief summary of the year's transport traffic at San Francisco Airport may be included at this point, although a complete traffic tabulation and a discussion of the subject are included elsewhere in this report. The summary follows:

Airline passengers "in and out" totaled 179,420, representing an increase of 42 per cent over the previous fiscal year, which had been the highest year on record. Not only did the year as a whole establish a new record, but each individual month was the highest on record for the month concerned.

Arrivals and departures of airline planes totaled 24,422, setting a new all-time high and representing an increase of 37 per cent over last year.

ADMINISTRATION BUILDING
Air terminal at Treasure Island, now occupied by Pan American Airways and United States Navy.

Air mail poundage "in and out" totaled 1,644,682, establishing a new all-time high and representing an increase of 25 per cent over last year.

Air express pounds "out" totaled 262,098, representing an increase of 52 per cent over last year, but not establishing a new record, due to the fact that heavy loads of Racing Forms were shipped by air express from San Francisco Airport several years ago. Air express "in" is not weighed at the airport and no figure is available.

These increases in a department as well established as San Francisco Airport are of a magnitude which demands serious consideration. They call for careful foresight in laying plans for future development in order that San Francisco may reap adequate rewards from the expanding commerce of the air.

The sharp upward trend of traffic at San Francisco Airport is an integral part of that which is taking place all over the United States. Figures released by the Civil Aeronautics Administration show that during the fiscal year just ended the domestic airlines of the nation flew 121,083,634 revenue miles, an increase of 28 per cent over the previous year, and carried 3,145,970 revenue passengers, an increase of 45 per cent.

United Air Lines Base Under Construction:

The move of United Air Lines to San Francisco Airport will at the outset bring to this air terminal some 600 employees, with an annual payroll of $1,500,000. A

20-year lease was signed by the airline officials and the Public Utilities Commission on October 1, 1940.

The new base, which will cost some $1,000,000, will consist of an administration building, a huge hangar with shop annexes, an engine test building, and an oil storage depot. Construction is well under way as the fiscal year is brought to a close, with the administration building being closest to completion as it will be the first to be occupied. The structures have been delayed somewhat by a shortage of materials brought about by the demands of the National Defense Program, but are scheduled for completion in February, 1942.

The base occupies 15 acres of airport property located at the northwest corner of the field, near the Bayshore Highway. Adequate area is available for expansion and a paved taxiway for use of the transport planes has already been completed between the base and the airport's passenger terminal building.

The great importance of this airline move not only for the present but likewise for the future cannot be over-emphasized. It represents the greatest single industrial development in the history of San Francisco Airport, and will be an ever-expanding addition to the commercial life of the city and community.

U. S. Coast Guard Fully Established:

The U. S. Coast Guard Base which was nearing completion at the close of the last fiscal year was put into operation during the fall months of 1940, and formally dedicated on February 15, 1941.

At the present time a complement of 60 men is stationed at the base and housed in modern designed barracks built to accommodate an eventual complement of over 100 officers and men. The large hangar provides space for an eventual complement of seven aircraft, although only three are assigned to the base at present. These are all twin-engined aircraft and include a "PBY" patrol bomber seaplane, a Douglas "Dolphin" amphibian, and a Grumman "Widgeon" amphibian.

A ramp is provided for the seagoing aircraft, and dock facilities for the rescue boat, motor launch and dinghy stationed at the base.

The channel leading to the seaplane harbor has been dredged out to deep water, and is lighted for a distance of 7,500 feet.

The hangar proper is surrounded on three sides by shop annexes and offices, including a machine shop, carpenter shop, paint shop, propeller shop, sand blast room, boiler room, photographic laboratory, electric and radio repair shop, storeroom, radio communications room, operations offices, and various administrative offices.

Daily air patrols are conducted over the San Francisco Bay area and adjacent shorelines, and searches and rescue work in any type of emergency are carried out on the waters along this section of the Pacific Coast.

Landing Field Enlarged and Improved:

In physical development of the airport proper the expansion project discussed in previous reports has progressed with great strides and is now virtually complete. A paved runway 6,000 feet long by 200 feet wide is now available into the

NIGHT FLIGHT
A TWA transport plane about to take off for regularly scheduled flight.

prevailing westerly winds. A new paved runway, 4,500 feet by 200 feet, running in a northeast-southwest direction, has been opened. It is used for the most part in stormy weather when winds predominate from a southerly direction. A third runway measures 5,500 feet by 200 feet and runs in a northwest-southeast direction. A hard-surface practice landing strip, 3,000 feet by 150 feet, running northeast-southwest, is available for the smaller aircraft.

Runway paving is of penetration macadam with concrete warm-up pads at the ends. The field's taxiway pattern has been extended to accommodate the new runway additions, providing convenient taxi routes between the loading ramp and outer sections of the field. Because of the heavy use to which some of these taxiways are put they are being paved with concrete.

Tide Flats Reclaimed and Seaplane Channel Dredged:

In the reclamation of a 300-acre area along the eastern section of the airport, the progress of which has been described in previous reports, the entire addition has now been reclaimed, 42 per cent by earth and rock fill, and 58 per cent by dredging processes. The dredging project served a two-fold purpose. Electric hydraulic equipment dredged the new seaplane harbor and channel to a depth of 10 feet below mean lower low water, and deposited the spoil within the dike surrounding the area to be reclaimed. This area is now going through a drying and settling process and will be made ready for actual use within the next few years.

The 42 per cent which was filled with dirt and rock has been entirely completed, and comprises for the most part the new runway sections.

As the field proper has been extended in area it has of course been necessary to relocate the boundary light circuits and floodlighting equipment.

Miscellaneous Improvements:

Smaller but nevertheless important projects completed during the year include the placing of drain tile under all newly developed areas, the installation of new high-capacity drainage pumps, the establishment of an independent sewage system, the removal of overhead power lines, and the completion of underground duct lines to house the wiring for future runway "contact" lights. A complete description of these and all construction projects carried on during the year is contained in a separate section of this report, headed "Engineering and Construction Work."

Government Trains Airport Helpers at San Francisco Airport:

A new government-sponsored program in which San Francisco Airport is taking part is that of training airport helpers. It is designed to insure an adequate supply of ground servicemen for the rapidly expanding airport facilities over the nation. The program is under the Works Progress Administration, from whose rolls the trainees are carefully selected. It is sponsored by the Advisory Commission for National Defense, and co-sponsored by the Civil Aeronautics Administration and the Office of Education.

During the spring months of 1941 a class of 10 young men was selected from the W. P. A. rolls of San Francisco and placed under the direction of an instructor trained and appointed by the Office of Education. The students are given both classroom and practical instruction in every branch of work they may be called upon to do as ground servicemen. The course runs for 90 days, and is to be followed by other classes as the national airport expansion program continues.

U. S. Weather Bureau Establishes New Forecast Center:

In May, 1941, the U. S. Weather Bureau moved its main San Francisco Bay area forecast center to San Francisco Airport. Up to this time the local weather bureau personnel had consisted of an official in charge and three weather observers. Since establishment of the new center the station complement has been increased to 24 persons. All forecast work formerly done at the main office in San Francisco, and at the airway office at Oakland Airport, has been consolidated into the one new center at San Francisco Airport.

Forecasts for the five western states are issued twice daily. Forecasts for the airways north to Medford, east to Salt Lake City, and south to the Tehachapi Mountains, are issued every six hours, and fire weather forecasts for Northern California are issued each morning and evening.

The new consolidated office occupies about one-half of the floor space on the mezzanine floor of the administration building. It includes a teletype and communications room, a map and forecast room, fire weather office, and administra-

LOBBY AND TICKET COUNTER
Main waiting room for air passengers in San Francisco Airport Administration Building.

tive offices. Additional space is provided on the third floor for storage and on the roof for observational work.

As in the past, weather observations of local conditions are taken hourly at the airport, and much more frequently during inclement weather. They are sent via teletype throughout this section of the country and broadcast by government radio stations for the benefit of aircraft in flight.

Mr. Edward M. Vernon is in charge of the new forecast center. Other forecasters on the staff are R. C. Counts, Jr., L. G. Gray, C. L. Smalley, Eugene Quinn, C. R. Elford, and E. J. Lager.

Transpacific Radio to Be Controlled from San Francisco Airport:

A radio facility which is entirely new to the Pacific Coast will soon be installed by the federal government and controlled remotely from headquarters at San Francisco Airport. It is the Transpacific Radio Station, the purpose of which is to collect and disseminate weather information between the mainland and ships at sea, including the "Clipper" planes wending their way between the United States, the Orient, and the South Seas.

The radio equipment itself will be installed at two points some distance from the airport, the radio receivers being at one location and the radio transmitter at another. Transmission and receipt of messages, however, will be handled by remote control from the new headquarters at the airport.

Complete sequences of weather reports will be received and broadcast on definite schedules, and weather forecasts will be relayed for the benefit of transoceanic commerce. This new high-powered communication station will be similar to the one now operated on the east coast. It is being equipped for direct communication with Alaska, Honolulu, and the Pacific area, New Orleans, and other points. It will form the key station in the communication network extending over the west coast, Alaska, and the Pacific area.

Radio Range Station to Be Completed in August:

Negotiations for the installation by the Federal Government of a radio range station at San Francisco Airport were successfully completed during the year, and construction of the new station was begun late in the spring of 1941. Due to the shortage of both radio equipment and suitable radio frequencies, it was necessary for the government to discontinue a less-important station and transfer its facilities to this field. The new station will supplant the low-powered equipment that was put into use last year on a trial basis and found to be inadequate for the type of air transport activity in operation at this field.

The station will be located on San Mateo Point, four miles southeast of the airport. One leg of the range will be directed over the landing field, another will point southeast along the direct flying route to Los Angeles, another northeast towards Sacramento, and the fourth southwest over the ocean.

The plan to make the permanent radio range installation over water at a location opposite San Mateo Point will be dependent on tests now being made with the new ultra high frequency range equipment that will ultimately be used. Thus the present land site will be used until these tests are completed and it is possible the present site may be the permanent one. The newly perfected "blind landing beam" will of course be aligned directly down the prevailing wind runway and will be used by pilots in making final approaches to the field under conditions of very poor ceilings and visibilities.

The blind landing beam is now going through a rigid test period under the supervision of the Civil Aeronautics Administration and should be available for installation at all major airports in the near future. Pending such installation, the pilots will be able to come down through the clouds on the new radio range facility to an altitude of 500 feet above the ground. When ceilings are lower than 500 feet they must proceed to the "alternate" airport specified in the plane's "flight plan," such airport being in a zone of good flying weather at the time.

U. S. Navy and Pan American Airways at Treasure Island:

Treasure Island, the City's second air terminal of the future, is now used jointly by the U. S. Navy Department and Pan American Airways. To cooperate with the Federal government in its defense program, the City and County of San Francisco concluded successful negotiations with the Navy Department during the year, whereby the island site will be used by the Navy as a training base for a period of five years or the duration of the national emergency. During this time, extensive improvements will be made by the Navy at the site, and such improvements will revert to the City and County of San Francisco to serve as a recompense for use of the ground and facilities.

However, the seaplane harbor, ramp facilities, and approximately one-half of the Administration Building will continue to be used by Pan American Airways under its 20-year lease with the Public Utilities Commission.

TELETYPE COMMUNICATION ROOM
Offices of the United States Airways Weather Bureau in Administration Building.

Pan American Airways Expands Pacific Operations:

"Round-the-World" air travel has during the past year changed for the most part to "Three-Quarters-Round-the-World" travel, not because of a lack of popularity for this form of transportation, but because of war conditions in Europe. And although the distance has been cut down somewhat, the volume of traffic over the "three-quarters" route has mounted to capacity figures.

San Francisco lies in the center of this great route which today links the nations of Western Europe with the Orient and the Antipodes via the United States. The closing of normal air routes through the Mediterranean has shifted to the long-way-round route, the passengers and mail requiring transit between Europe and Australasia, the Malay Peninsula, the Netherlands East Indies, and other points in the Far East.

Addition of this traffic has seriously reduced the available capacity on the heavily loaded sector between San Francisco and the Hawaiian Islands. Consequently the officials of Pan American Airways are laying plans to increase schedules between the Pacific Coast and the Territory of Hawaii in the near future, probably in August, 1941. The new schedules will double passenger and cargo capacity available on present schedules which call for one arrival and departure each week on the route to the Orient, and one arrival and departure every second week on the route to New Zealand.

An idea of the load increases which have taken place on the transpacific "Clippers" since the beginning of 1941 may be gained from the facts that mail cargoes

have increased some 200 per cent, passenger space has been utilized to better than 95 per cent capacity, and shipments of air express have increased in like proportions. It is estimated that the "Clippers" are now carrying 20 per cent of all letter mails to and from Hawaii, 30 per cent to and from the Orient, and 20 per cent to and from Australasia.

Singapore New Terminus in Orient:

An important route extension was inaugurated by Pan American Airways on May 3, 1941, when the "California Clipper" left San Francisco en route for a new destination—namely, the important Strait Settlement city of Singapore. Instead of running each week to Hong Kong, the transpacific schedule now flies one week from Manila to Singapore, and the next from Manila to Hong Kong.

An idea of the vast extent of the transpacific operations of Pan American Airways may be gained from the following statistics, which show the miles of flying completed and cargo carried as of June 30, 1941, over the two Pacific routes —one to the Orient and the other to New Zealand:

Scheduled Flying Completed on the North Pacific:

(San Francisco to Hawaii, the Philippines and the Orient)	4,190,905 miles
Number of passengers carried	8,201
Mail carried	466,009 pounds
Number of letters carried (estimating 40 letters to the pound)	18,640,360
Express carried	200,282 pounds

Scheduled Flying Completed on the South Pacific:

(San Francisco, via Los Angeles, to Hawaii, and Auckland, New Zealand)	398,802 miles
Number of passengers carried	856
Mail carried	70,346 pounds
Number of letters carried (estimated)	2,813,840
Express carried	30,316 pounds

An interesting summary of the Pan American Airways organization and what it is doing may be gleaned from the following tabulation:

PAN AMERICAN AIRWAYS LOG

77,070 total route miles
55 countries and colonies served
1,826,000 passengers carried
768,000,000 passenger-miles flown
191 ground radio stations operating
6,782 persons employed
154 aircraft in operation
98.86 per cent regularity of schedule maintained

FORECASTING CENTER
Quarters of United States Weather Bureau main forecasting and Airway Weather Bureau for Bay area.

NATIONAL AERONAUTICAL PROGRESS

The importance of the municipal airport to the life of San Francisco cannot be fully appreciated without a short discussion of the national aeronautical industry of which it is a part. A brief summary will therefore be shown of the progress of aviation over the United States as a whole. Four topics will be covered—namely, the Federal program of developing airports, aircraft production, current air transport activity, and private flying in the United States.

Federal Airport Program:

Realizing the fact that a "bottle-neck" can easily develop in the nation's great aviation program if adequate airport facilities are not made available, the Civil Aeronautics Administration has set up a long-range development plan calling for a system of 4,000 landing areas over the United States with additional investments of $550,000,000 over a six-year period.

The initial step in the development took place during the 1940-41 fiscal year, when over 200 airports were improved or constructed on an appropriation of $40,000,000. At this time there were some 2,300 airports in the United States. On June 20, 1941, the Congress approved an appropriation of $94,977,750 for airport development during the 1941-42 fiscal year. This amount will be supplemented by $42,000,000 in W. P. A. work. It will complete work on projects already under way and add 149 airports to the list of those thus far included in C. A. A. aid.

Aircraft Production:

Due to the National Defense Program and the wars abroad it is commonly known that the aircraft production facilities of the United States are being taxed to the limit of their capacity and are being expanded with the utmost speed. On March 31, 1941, the aircraft industry employed 289,000 persons, but the United States Department of Labor estimates that this number will be increased to 580,000 workers by November 1, 1941, if present schedules are to be fulfilled. Two years ago there were 50,000 workers in the aviation industry.

Planned expenditures for airplanes in national defense have reached $11,957,000,000, which is the largest single item in the total defense fiscal picture, according to an analysis of the U. S. and British commitments in this country issued by the Office of Production Management's Bureau of Research and Statistics.

During the first quarter of 1941 the U. S. exports of aeronautical products reached $124,363,803, setting an all-time high and representing an increase of $57,547,595 over the value of aeronautical products exported during the first quarter of 1940.

The latest available figures on "civil" aircraft production in the United States are as follows:

	1940	Increase Over 1939
Number of aircraft manufactured for domestic civil use.....	6,748	82%

Scheduled Air Transport Activity in the United States:

In the national field the fiscal year 1940-41 was marked by record-breaking activity in all branches of scheduled air transport operations. A summary of statistics for domestic air carriers follows:

	Fiscal Year 1940-1941	Increase Over Previous Year
Revenue miles flown.....	121,083,634	28%
Revenue passengers carried.....	3,145,970	45%
Revenue passenger-miles flown.....	1,174,835,025	38%
Express pound-miles flown.....	8,300,147,901	39%

These increases of the past year seem extraordinary in a national industry, but in this regard it is interesting to consider a statement made by Assistant Secretary of Commerce Robert H. Hinckley, before the American Municipal Association on November 14, 1940, to the effect that Federal airways experts estimate a volume of air traffic by 1945 that will be from 20 to 30 times what it is today.

At the close of the fiscal year the total mileage of lighted, operating airways in the United States had increased to 30,913, an increase of 8 per cent over the figure of a year ago. In addition to this mileage there were 1,945 miles of airways under construction, and 921 miles under survey. Other navigation facilities along the routes, such as radio range stations, light beacons, intermediate fields, etc., have increased in like proportion, as shown on a graph labeled "Airways Facilities of the United States" on an adjoining page of this report. This graph shows also the facilities that will be provided by the end of the next fiscal year, June 30, 1942.

As of December 31, 1940, the route mileage of American operated airlines totaled 94,079, an increase of approximately 17 per cent over the figure of one year ago. Of this total, 53,025 miles were over international or territorial routes which

CONTROL TOWER
Here air traffic at San Francisco Airport is regulated by radio. All conversation is recorded by device at left-center.

extend north through Alaska, south into the lower sections of South America, east to Europe, and west to the Orient and the Antipodes.

Safety is given paramount consideration in the operation of all scheduled airlines. That such a policy is effective is shown by statistics published by the C. A. A. During 1940 the miles flown per fatal accident totaled 39,839,088. This figure rose 9½ million miles since the previous year, and 32½ million miles since 1936. The total mileage flown by the airlines during 1940 was 119,517,263, and only three fatal accidents occurred.

Private Flying in the United States:

In the realm of private flying, which is coming to the fore with great strides over the nation, impressive statistics have been published by the C. A. A. They are as follows:

	1940	Increase Over 1939
Miles flown in private flying	264,000,000	48%
Miles flown per fatal accident	1,269,231	38%
Miles flown per fatality	800,000	41%

	June 30, 1941	Increase Over June 30, 1940
Civil aircraft pilots holding licenses	82,277	101%
Number of civil aircraft	22,523	57%

The fiscal year 1940-41 witnessed by far the greatest training of pilots in the nation's history. In the single 12-month period the number was increased two-fold, and pilots were being turned out at the rate of 3,000 per month in the primary course, and 750 per month in the advanced course. This increase is due largely to the Civilian Pilot Training Program of the C. A. A., in which several flying school operators at San Francisco Airport have taken part. Students from the junior colleges in San Francisco and on the Peninsula are selected as trainees, and graduate with private pilot licenses after a 3- to 4-months' course of instruction. The "ground school" work is taught at the junior college and the flight instruction is received at the airport.

These new pilots are volunteering in the Army and Navy air services at the rate of 500 per month. Their enlistments represent 22 per cent of all the flying cadets recruited by the Army from all sources, and 27 per cent of all those recruited by the Navy. Congress has appropriated $25,000,000 for the C. P. T. P. during the 1941-42 fiscal year.

California Continues Lead in Private Flying:

As in past years, the State of California leads the nation in all of the three categories which must be used as yardsticks in determining the extent of private flying operations. These categories are—number of aircraft, number of pilots, and number of airports. Statistics published by the C. A. A. are as follows:

As of June 30, 1941	No. of Aircraft (Excluding Gliders)	No. of Pilots (*Excluding Airline)	No. of Airports (Excluding Army and Navy)
California	2,262	9,787	182
Nearest Rival	2,169 (Pennsylvania)	5,507 (New York)	181 (Texas)
Total for U. S. and Territories	22,523	80,767	**2,277
Per Cent of Total Represented by Calif.	10%	12%	8%

*California has 178 airline transport pilots, 12% of the nation's total.
**No territories included.

TRANSPORT TRAFFIC AT SAN FRANCISCO AIRPORT

San Francisco Airport continues to be served by the only two air transport companies which operate in Northern California—United Air Lines and Transcontinental and Western Air. These air carriers are two of the largest in the world. Their planes fly more than one-third of the total revenue miles flown by all the domestic air carriers of the United States.

The schedules of United Air Lines at San Francisco Airport number 37 arrivals and 37 departures daily. Service is provided north to Vancouver, south to San Diego, and east to New York and Philadelphia via the mid-continent route. Connecting services operated by United run from Portland and Spokane to Salt Lake City, from Denver to Cheyenne, and from Omaha to Lincoln.

Transcontinental and Western Air maintains its Northern California base at San Francisco Airport. It occupies the whole of Hangar No. 4 and adjacent shops, and has a suite of offices in the Administration Building. One schedule leaves daily for Phoenix, Arizona, and one arrives from that city. Stops en route include Oakland, Fresno, Las Vegas, Boulder City and Kingman. At Boulder City, con-

TWA FACILITIES
Operations and radio room of Transcontinental and Western Air, Inc.

nection is made with the transcontinental flights between Los Angeles and New York. In addition to the San Francisco-Phoenix route, and the Los Angeles-New York route via St. Louis, T. W. A. operates between Kansas City and New York via Chicago, Chicago and Pittsburgh via Fort Wayne, and St. Louis and Detroit via Cincinnati.

Through the direct services and connections available via United Air Lines and Transcontinental and Western Air at San Francisco Airport, air transportation is offered to all points of the United States. Through the facilities of Pan American Airways at Treasure Island, as well as the P. A. A. facilities at New York and Miami, this available air service is extended to the greater part of the world.

Airlines Need More Planes:

So great has been the increase in air transport activity during the past year that the problem facing airlines today is not one of getting passengers and cargo but one of getting aircraft in which to carry the passengers and cargo. The National Defense Program is absorbing practically all the heavy aircraft turned out by the factories, and, in fact, has taken many airline aircraft that were actually in use. The year 1941 was to mark the inauguration of four-motored equipment at San Francisco Airport, but the deliveries of this equipment have been indefinitely postponed. The only four-motored ships in use are those purchased over a year ago which operate via T. W. A. on the southern route.

It is believed, however, that a few new Douglas DC-3 transports, the type commonly used, will be made available to the airlines during the coming year to ease the acute shortage. These planes carry 21 passengers and a crew of three, weigh 12 tons when fully loaded, and cruise at a speed of three miles per minute.

San Francisco Airport Traffic Figures:

On an adjoining page may be found a complete tabulation by months of the San Francisco Airport traffic for the past two fiscal years. The outstanding feature of this tabulation is that great increases are shown in all four branches of activity —namely, planes, passengers, mail, and express.

The arrivals and departures of transport planes, considered by months, shows an increase of from 12 per cent to 81 per cent, with the year's total of 24,422 representing a 37 per cent increase. Ten of the 12 months set new all-time highs for the month concerned, the two exceptions being August and December, which were slightly surpassed during 1936, when smaller transports were in use.

Passengers "in and out" showed gains of from 24 per cent to 70 per cent for the various months, and each month of the year established a new record for the month concerned. Passengers "in" totaled 88,569, and passengers "out" totaled 90,851. The combined figure of 179,420 represents an increase of 42 per cent over last year.

Pounds of air mail set new records for every month except August and February, which were slightly below last year's figures. Total poundage "in and out" amounted to 1,644,682, representing an increase of 25 per cent over last year. It was necessary to estimate the June figure for poundage "in," because compilation of this weight was discontinued by United Air Lines during June, and no record is available from other sources.

Air express poundage "out," which is the only express figure recorded at the airport, increased 52 per cent over last year.

Although the traffic figures as a whole show remarkable gains, it must be remembered that schedules have frequently been cancelled at San Francisco Airport due to the absence of a radio range facility, and the totals would therefore have been even more impressive if the range installation now nearing completion had been available during the past year.

LOCAL FLYING

In local flying activity apart from airline operations, a healthy development has taken place. Hangar space has been occupied to capacity, thereby limiting the number of smaller planes based at the airport, but this condition has served as a necessary "governor" on the amount of strictly local flying. The Civil Aeronautics Administration is placing rigid restrictions on local flying at major air terminals used by transport planes, and while consideration was given the placing of such restrictions at San Francisco Airport, the date has been postponed due to the fact that the number of smaller ships has not become unwieldy. Although the number of planes therefore remains about the same as last year, the operation of these ships has been stepped up without jeopardizing safety, due principally to rigid traffic control.

OPERATIONS OF UNITED AIR LINES AND TRANSCONTINENTAL & WESTERN AIR AT SAN FRANCISCO AIRPORT

Month	Transport Planes (Arrs. & Deps.) 1939-40	Transport Planes (Arrs. & Deps.) 1940-41	Percentage Increase	Passengers 1939-40 In	Passengers 1939-40 Out	Passengers 1940-41 In	Passengers 1940-41 Out	Total Passenger Percentage Increase	Pounds of Air Mail In and Out 1939-40	Pounds of Air Mail In and Out 1940-41	Percentage Increase or Decrease	Pounds of Air Express Out Only 1939-40	Pounds of Air Express Out Only 1940-41	Percentage Increase
July	1,247	1,986	58%	5,194	5,289	7,962	8,120	53%	90,555	111,910	39%	8,008	16,402	105%
August ...	1,572	1,978	26%	6,507	6,565	8,854	8,671	33%	116,075	108,907	—6%	12,123	18,498	53%
September.	1,361	2,245	65%	5,499	5,743	9,049	9,362	64%	100,797	131,868	31%	11,317	24,151	113%
October ...	1,565	2,238	43%	5,455	5,599	8,946	9,154	64%	118,032	150,697	28%	19,676	24,717	26%
November .	1,415	2,023	43%	4,662	4,799	6,657	6,857	43%	104,579	134,500	29%	9,999	20,933	109%
December..	1,216	1,759	44%	3,948	4,127	4,755	5,246	24%	107,027	125,214	17%	16,167	24,338	51%
January ...	903	1,638	81%	2,529	2,710	4,415	4,469	70%	74,701	121,843	63%	7,915	18,003	127%
February ..	1,474	1,888	28%	3,139	3,316	4,207	4,409	33%	121,955	120,879	—1%	17,161	18,372	7%
March	1,414	2,175	54%	4,984	5,217	7,342	7,392	44%	116,260	162,069	47%	18,893	23,650	25%
April	1,660	1,977	19%	6,030	6,220	7,420	7,735	24%	124,994	151,896	21%	18,754	23,742	26%
May	2,051	2,297	12%	7,335	7,521	9,167	9,653	27%	127,885	157,143	23%	19,666	23,466	19%
June	1,919	2,218	16%	6,905	7,253	9,795	9,783	38%	112,451	167,756*	49%	18,769	25,826	32%
Totals	17,797	24,422	37%	62,187	64,359	88,569	90,851	42%	1,315,311	1,644,682	25%	178,448	262,098	52%
				126,546		179,420								

*Estimated for month of June, 1941

During March of 1940 a daily record was begun of the activity in the various types of local flying conducted at the field. Although no comparison can be made with previous years, the record for the 1940-41 fiscal year is set forth herewith:

Arrivals—Military	409
Departures—Military	407
Arrivals—Civil Non-Scheduled	3,802
Departures—Civil Non-Scheduled	3,706
Landings—Local	72,911
Takeoffs—Local	72,911
Total	154,146

Classification of Locally Based Aircraft:

The 49 airplanes based at San Francisco Airport as of June 30, 1941, may be classified according to use as follows:

27—Private use only
16—Flying school training
*2—Aircraft dealers' demonstrators
**2—Charter trips and scenic flights
1—Flying club
1—Skywriter

*Three airplanes classed under flying school training also used as dealers' demonstrators.
**One airplane classed under dealers' demonstrators, and 12 under flying school training, also used for charter trips and scenic flights.

TENANTS

United Air Lines Transport Corporation:

United Air Lines offices at San Francisco Airport as of June 30, 1941, included an administrative office, an operations office, a crew room, and a section of the ticket counter in the main lobby.

Local personnel include the District Superintendent of Passenger Service, Mr. C. C. Robinson, who is in charge of the station; 2 senior passenger agents, 10 passenger agents, 1 stenographer, 3 senior cargo handlers, 6 cargo handlers, and 6 apprentice cargo handlers.

Transcontinental and Western Air, Inc.:

The Northern California operations base of Transcontinental and Western Air, located at San Francisco Airport, occupies the following space: three administrative offices on the mezzanine floor, one radio room, one operations office on

the ground floor, a section of the ticket counter in the main lobby, and one complete hangar with adjacent shops.

The base is under the supervision of Mr. H. G. Andrews, Assistant Superintendent of the Pacific Division. Included in the personnel complement are: 1 chief radioman, 2 radiomen, 1 chief passenger agent, 1 passenger agent, 3 captains, 4 first officers, 3 hostesses, 1 maintenance foreman, 1 inspector, 4 mechanics, 1 apprentice mechanic, 3 cleaners, 1 maintenance clerk.

U. S. Weather Bureau:

The newly established consolidated forecast center of the U. S. Weather Bureau occupies the following space at San Francisco Airport: 2,299 square feet of office space divided into six rooms on the mezzanine floor of the Administration Building, 301 square feet of space for equipment and storage on the third floor, 232 square feet of space on the roof, used for observational work and the exposure of instruments, and additional space on the airport property for ceiling lights, radio antennas, and other appurtenances.

A complement of 24 employees is attached to the station.

Skyway Cafe:

The coffee shop, refreshment lounge, and concession counter are jointly termed the "Skyway Cafe," and are operated by Mr. David Rasmussen, under a license agreement with the Public Utilities Commission.

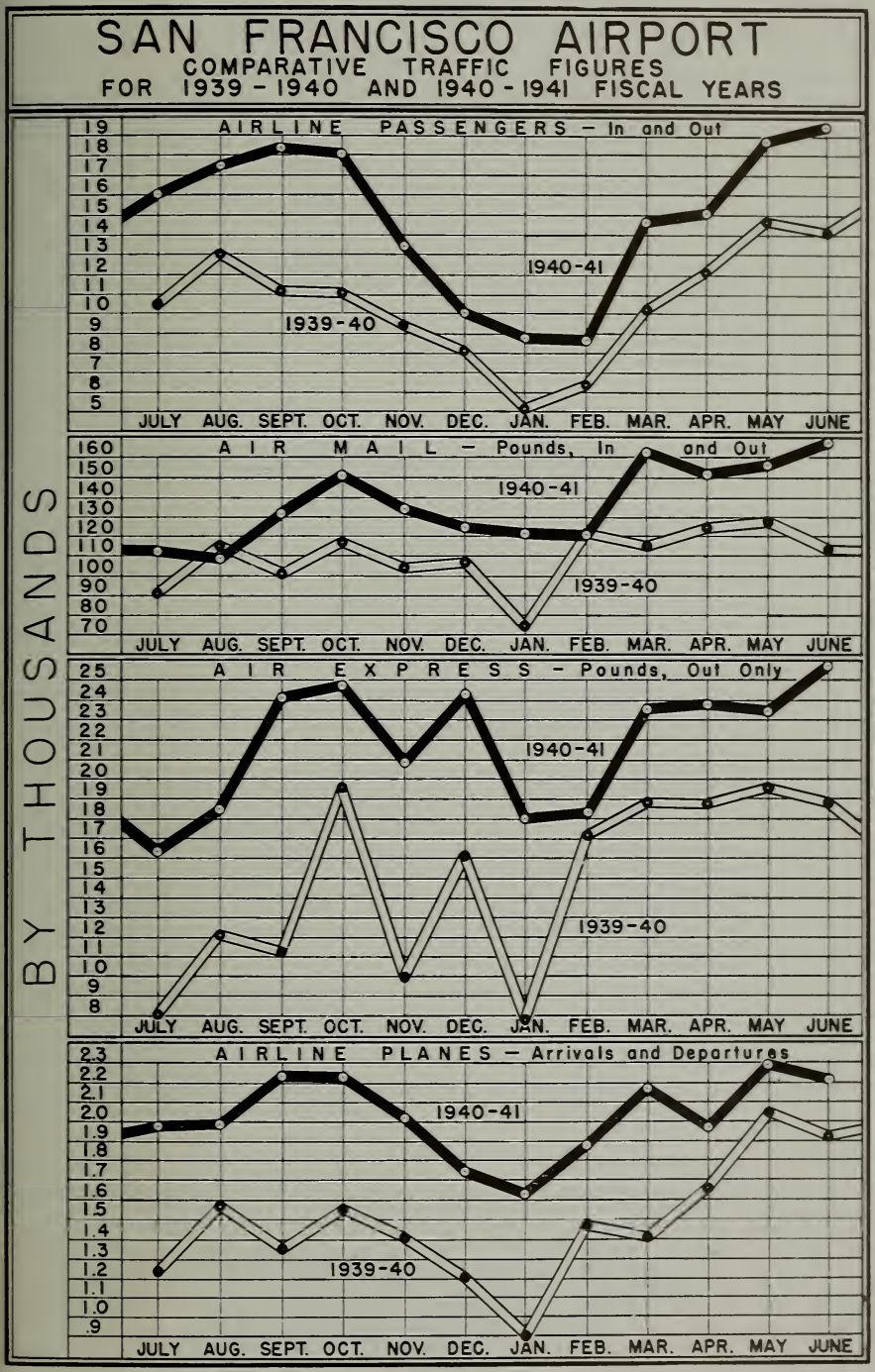
Wunderlich Radio, Incorporated:

A section of the airport's airplane and engine maintenance building is leased to Wunderlich Radio, Incorporated, which company is engaged in the construction and repair of radio equipment, mainly in the aviation field.

Offices and Shops Off Hangars:

The following tenants occupied offices and shops in the hangar annexes as of June 30, 1941:

Aircraft Sales of California	—1 office
Albrektson Flying Service	—1 office, 1 shop
Civilian Flying, Inc.	—1 office, 1 shop
Fuller Club Rooms	—2 offices, 1 shop
Lyon Air Service	—2 offices, 1 shop
Poteet Flying School	—1 office
Scott Rockey	—1 shop
Stinson Flying Co.	—1 office
W. C. Talbot and F. C. Talbot	—1 office, 1 shop


SAN FRANCISCO AIRPORT
COMPARATIVE TRAFFIC FIGURES
FOR 1939 - 1940 AND 1940 - 1941 FISCAL YEARS
BY THOUSANDS
AIRLINE PASSENGERS — In and Out
1940-41
1939-40
AIR MAIL — Pounds, In and Out
1940-41
1939-40
AIR EXPRESS — Pounds, Out Only
1940-41
1939-40
AIRLINE PLANES — Arrivals and Departures
1940-41
1939-40
JULY AUG. SEPT. OCT. NOV. DEC. JAN. FEB. MAR. APR. MAY JUNE

Airplane Owners:

Hangar space for the 49 airplanes based at San Francisco Airport as of June 30, 1941, was rented by the owners on a monthly basis, at the rate of 2½ cents per square foot of space occupied. The area is determined by multiplying the over-all length of the aircraft by the wingspread.

Telegraph Agencies:

Western Union Telegraph Company and Postal Telegraph-Cable Company maintain agencies at San Francisco Airport. They are located at the Communications Counter in the main lobby and are operated by the airport under an agreement with the companies whereby rental for floor space and a percentage of the income is collected by San Francisco Airport.

ENGINEERING AND CONSTRUCTION WORK

During the fiscal year 1940-41, the total cost of construction work at San Francisco Airport was approximately $933,219, divided into $443,357 contributed by the City from the 1938 Bond Fund and $489,862 contributed by the Federal Government for W. P. A. Project 8718 and succeeding Project 52-12182. The detail of the expenditures is shown in the table on an adjoining page, and is described in the sections below.

Of the funds contributed by the Federal government, $440,318 was expended for labor and $49,544 for non-labor.

Status of W. P. A. Projects:

W. P. A. Project 8718 was terminated by Presidential Letter on February 28, 1941. A continuing project (52-12182) was approved early in March and work was resumed on March 7. No additional funds were requested and the items and quantities of work were diminished in order to complete the units by June 30, 1941. The greatly reduced labor force has permitted the carrying on of the project well into the year 1941-42.

On July 1, 1941, a 301 application was prepared and presented to the Federal Agency requesting additional funds to carry the project to completion.

The principal items of work which were completed, and items which are under construction scheduled for early completion are described below:

Paving:

Two hundred fourteen thousand, six hundred square feet of reinforced concrete aprons and taxiways completed with W. P. A. forces.

Nine hundred fifteen thousand, two hundred seventy-six square feet penetration macadam pavement for runway extensions and taxiways under construction (Contract 60) and scheduled for completion early in August, 1941, of the next fiscal year.

PAN AMERICAN AIRWAYS SYSTEM

The City's quarry at San Andreas was operated during the year, producing 62,000 cubic yards of select material for waterbound macadam pavement foundation and conforming.

Drainage:

Twenty thousand, five hundred lineal feet of vitrified clay drain pipe was required to complete the landing field extension area and area adjacent to the Air Line Terminal. All but 5,000 feet of the drain tile has been installed.

Pumping Plant:

The new pumping plant consisting of two 15,000-gallon pumps and one 1,000-gallon pump was completed early in June. Except for the driving of sheet piling, the entire plant, including substation, was constructed with W. P. A. forces.

Sewage Disposal:

A new sewage pumping plant was installed to handle the sewage from the Air Line Terminal. The plant included the laying of approximately 3,500 feet of 6-inch universal joint pipe tying into the existing discharge line.

The outfall sewer was disconnected from the San Bruno line and approximately 2,000 feet of 6-inch universal joint pipe installed. This gives the airport an independent system.

Power and Lighting:

The selective service power supply was changed to an underground system, which permitted the removal of the overhead pole line, eliminating a hazard to air transportation.

Considerable progress was made on the permanent boundary light system. This important unit of work can progress only as the drainage is installed, and the extension areas are cleared of refuse and leveled.

The duct system for the runway contact lights is complete.

Seaplane Harbor and Channel:

The seaplane harbor and channel was dredged by the U. S. Army Engineer Corps under contract. One-half of the cost of this was borne by the City with funds provided from the 1938 Airport Bond issue. The completion of this work provided a 6,000-foot channel to deep water and harbor for seaplane operations. The harbor and channel were dredged to 10 feet, providing deep water at the lowest tides.

The spoil from the dredging operation was used to reclaim areas within the landing field extension, and north of the north sea wall.

Air Line Terminal:

Contract was awarded to Barrett & Hilp for the construction of the Air Line Terminal buildings early in April. The plant consists of an administration build-

ing, hangar, shops and engine test building, and oil storage depot. The work is progressing rapidly and the end of the fiscal year finds the plant 16.25% complete. The terminal is scheduled for completion in February, 1942.

U. S. Coast Guard Air Station:

Work was completed on the U. S. Coast Guard Station and it was formally dedicated February 15, 1941.

Engineering Personnel:

All engineering, architectural work for the airport was done by the Bureau of Engineering of the Public Utilities Commission, of which L. T. McAfee is Utilities Engineer, L. W. Stocker is Chief Civil Engineer, and George D. Burr and A. J. Wehner are, respectively, designing engineer and construction engineer for the airport work.

AIRPORT TRAFFIC CONTROL

The sweeping increases in the volume of air traffic over the nation are bringing cheer to all branches of the aircraft industry save one. This branch has to do with air traffic control. The difficulties in the new problem arise for the most part out of the congestion which may develop at the air terminals.

During the past several years two departments of air traffic control have been organized. The Airway Traffic Control section of the C. A. A. is vested with the responsibility of controlling traffic along the various airways. The airport traffic control towers operated by the airport managements at the various terminals are responsible for the control of traffic on and in the immediate vicinity of the airports. Local procedures are subject to Federal approval and all control tower operators must be Federally licensed.

At San Francisco Airport the control tower personnel consists of seven men, and the number is to be increased to nine at the beginning of the 1941-42 fiscal year. Each operator must possess an Airman Certificate and Airman Rating of junior or senior grade, depending upon his duties. These licenses are obtained only after passing rigid written, oral, and physical examinations. They must be renewed annually.

Traffic within a radius of three miles of the airport is subject to tower control, which is in effect 24 hours daily. Radio-telephone communication provides the principal means of carrying on this work, and signal lights are used to supplement the directions given by radio.

The San Francisco Airport control tower is soon to be completely remodeled, and will be second to none in design and equipment. Its windows are to be sloped to eliminate reflections, and the glass will be of a heat-absorbent type, tinted to prevent glare. New control desks are being designed to provide greater efficiency of operation, and a complete bank of new radio receivers is being built to specification. A voice recording system will soon be installed to supplant the written radio logs. All radio conversations, both the messages received and those transmitted, will be automatically recorded on plastic disc records and filed for reference.

Safety at San Francisco Airport:

The fact that flying at San Francisco Airport is maintained on an exceptionally high safety standard was again shown during the past fiscal year.

In airline activity at the field no accidents involving even minor injury occurred. Although this record is the usual order of things at this field, nevertheless it is impressive when we consider the fact that "in and out" passengers totaled 179,420 for the year, and an additional crew of three persons were present on each of the 24,422 "arrivals and departures" of airline planes.

In other types of local flying only one accident involving injury occurred. The solo pilot of a training plane was injured when he was forced to land due to motor failure just after take-off. The landing was made in a cross-wind direction outside the field boundary.

When one considers the fact that landings and take-offs apart from airline operations totaled 154,146 during the year, and that these flights represented student training, practice work, pleasure flights, test flights, charter and scenic flights, itinerant aircraft, and all the other forms of flying, the safety record is a remarkable testimonial to the reliability of the present day airplane, the ability of present day pilots, and the efficiency of air traffic control as exercised by the control tower operators under the supervision of the airport management and the Civil Aeronautics Administration.

PERSONNEL

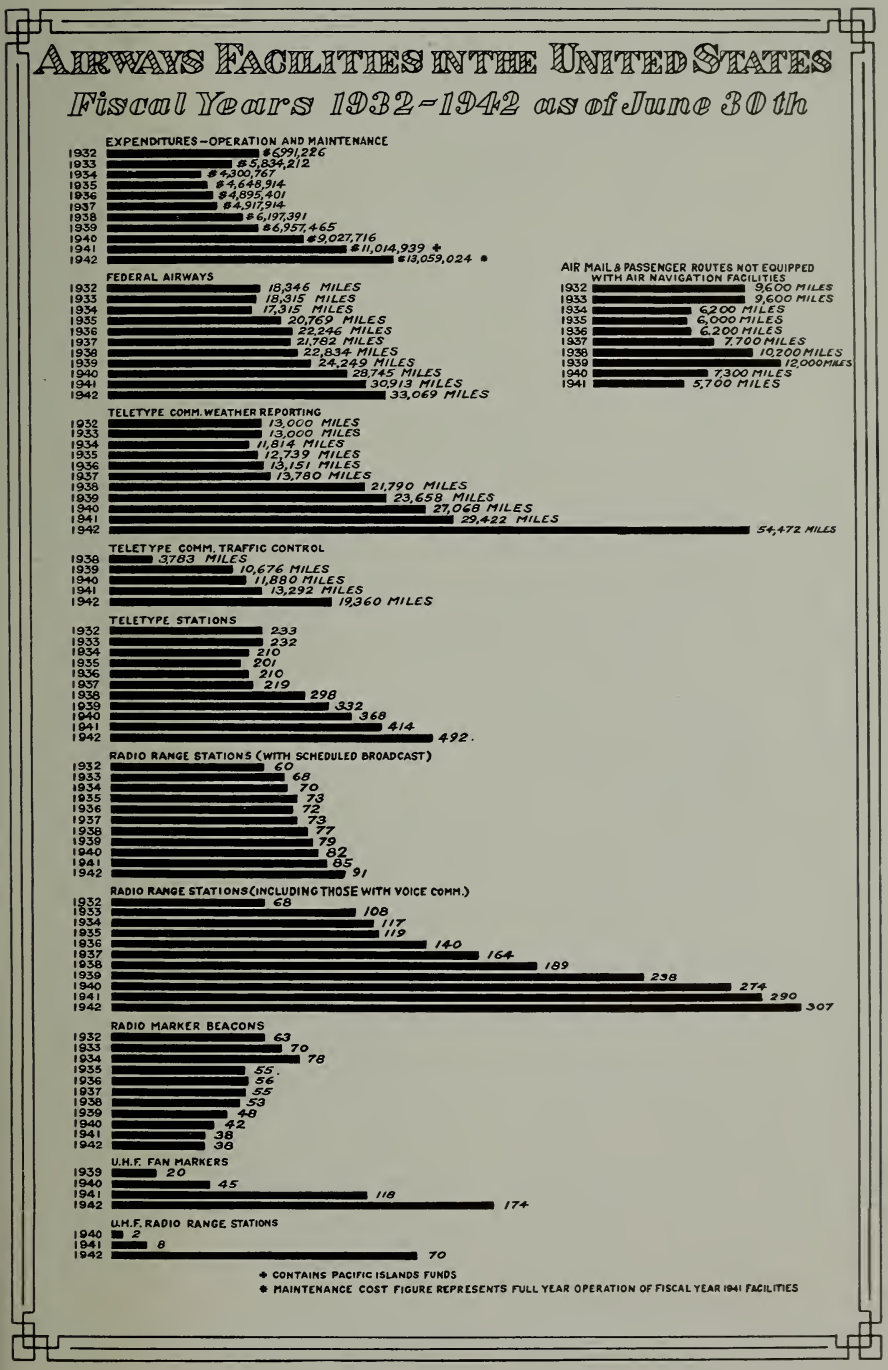
As of June 30, 1941, the personnel roster at San Francisco Airport was composed of the following:

Manager, Airport Department—Mr. B. M. Doolin
Superintendent of Operations, San Francisco Airport—Mr. H. S. Messersmith

1—Senior Control Tower Operator
5—Associate Control Tower Operators
1—Junior Control Tower Operator
1—Maintenance Chief
3—Crew Chiefs
1—General Clerk Stenographer
2—General Clerk Typists
5—Airport Attendants
1—Gardener
3—Janitors

On June 1, 1941, the cargo handling duties of the airlines at San Francisco Airport were transferred from the airport to the airline personnel. Prior to that date, a monthly charge had been made by the airport for providing this service, and the airport attendants employed for the work were listed as "temporary" on the payroll. The agreement between the airport and the airlines was so drawn that the cargo handling could be terminated by either party on 30 days' notice. The employees no longer needed by the airport after termination of this work were hired by United Air Lines.

On January 16, 1941, the airport's Civil Service Amendment to the Charter of the City and County of San Francisco was ratified by the California State Legislature, and all airport positions, except that of Manager of the Airport Department, are now under the City's Civil Service system.


AIRWAYS FACILITIES IN THE UNITED STATES
Fiscal Years 1932-1942 as of June 30th
EXPENDITURES—OPERATION AND MAINTENANCE
1932 $6,991,226
1933 $5,834,212
1934 $4,300,767
1935 $4,648,914
1936 $4,895,401
1937 $4,917,914
1938 $6,197,391
1939 $6,957,465
1940 $9,027,716
1941 $11,014,939 +
1942 $13,059,024 *
FEDERAL AIRWAYS
1932 18,346 MILES
1933 18,315 MILES
1934 17,915 MILES
1935 20,769 MILES
1936 22,246 MILES
1937 21,792 MILES
1938 22,834 MILES
1939 24,249 MILES
1940 28,745 MILES
1941 30,913 MILES
1942 33,069 MILES
AIR MAIL & PASSENGER ROUTES NOT EQUIPPED WITH AIR NAVIGATION FACILITIES
1932 9,600 MILES
1933 9,600 MILES
1934 6,200 MILES
1935 6,000 MILES
1936 6,200 MILES
1937 7,700 MILES
1938 10,200 MILES
1939 12,000 MILES
1940 7,300 MILES
1941 5,700 MILES
TELETYPE COMM. WEATHER REPORTING
1932 13,000 MILES
1933 13,000 MILES
1934 11,814 MILES
1935 12,739 MILES
1936 13,151 MILES
1937 13,780 MILES
1938 21,790 MILES
1939 23,658 MILES
1940 27,068 MILES
1941 29,422 MILES
1942 54,472 MILES
TELETYPE COMM. TRAFFIC CONTROL
1938 3,783 MILES
1939 10,676 MILES
1940 11,880 MILES
1941 13,292 MILES
1942 19,360 MILES
TELETYPE STATIONS
1932 233
1933 232
1934 210
1935 201
1936 210
1937 219
1938 298
1939 332
1940 368
1941 414
1942 492.
RADIO RANGE STATIONS (WITH SCHEDULED BROADCAST)
1932 60
1933 68
1934 70
1935 73
1936 72
1937 73
1938 77
1939 79
1940 82
1941 85
1942 91
RADIO RANGE STATIONS (INCLUDING THOSE WITH VOICE COMM.)
1932 68
1933 108
1934 117
1935 119
1936 140
1937 164
1938 189
1939 238
1940 274
1941 290
1942 307
RADIO MARKER BEACONS
1932 63
1933 70
1934 78
1935 55
1936 56
1937 55
1938 53
1939 48
1940 42
1941 38
1942 38
U.H.F. FAN MARKERS
1939 20
1940 45
1941 118
1942 174
U.H.F. RADIO RANGE STATIONS
1940 2
1941 8
1942 70
+ CONTAINS PACIFIC ISLANDS FUNDS
* MAINTENANCE COST FIGURE REPRESENTS FULL YEAR OPERATION OF FISCAL YEAR 1941 FACILITIES

SCHEDULE No. 1

BALANCE SHEET—JUNE 30, 1941

ASSETS

Fixed Capital:		
In Service	$2,981,886.37	
Less Reserve for Depreciation	398,550.02	
	$2,583,336.35	
Under Construction (1938 Airport Bond Fund)	2,093,997.63	4,677,333.98
Cash:		
Operating Fund	$24,470.14	
Revolving Fund	200.00	
1938 Bond Fund	483.217.61	
Airport Improvement Clearing Fund	837,544.63	1,345,432.38
Accounts Receivable:		
Operating Fund	$12,729.30	
1938 Bond Fund	2,408.98	
	$15,138.28	
Less Reserve for Bad Accounts	4,100.00	11,038.28
Inter-Fund Accounts:		
General Fund—Taxes Receivable, 1940-1941 and Prior	$4,882.98	
Less Reserve for Uncollectible Taxes	601.92	4,281.06
Deferred Charges:		
Materials and Supplies	$1,331.63	
Prepaid Insurance	1,905.91	
Outstanding Encumbrances (Contra)	644,301.60	647,539.14
		$6,685,624.84

LIABILITIES

Bonded Debt:		
1938 Airport Bonds dated January 1, 1938: Interest Rate not to exceed 6%: due January 1, 1940 to 1948, inclusive, at the rate of $285,000.00 per year.		
Bonds Authorized	$2,850,000.00	
Less Bonds Matured	570,000.00	
Bonds Outstanding (Details Annexed)		$2,280,000.00
Bond Interest Payable:		
Accrued—Not Due—1938 Airport Bonds		20,470.00
Accounts Payable:		
Warrants Outstanding—Operating Fund	$1,606.08	
Payroll Outstanding—Operating Fund	1,515.00	
General Creditors—Operating Fund	2,712.90	
Warrants Outstanding—1938 Bond Fund	8,313.01	
Payroll Outstanding—1938 Bond Fund	9,530.69	
General Creditors—1938 Bond Fund	12,553.82	
Contract Payments Due—1938 Bond Fund	88,552.44	
Contract Retentions—1938 Bond Fund	13,814.16	
United Air Lines Transport Corporation—Airport Improvement Clearing Fund	49,098.90	
Warrants Outstanding — Airport Improvement Clearing Fund	35,775.00	
Outstanding Encumbrances (Contra)	644,301.60	867,773.60
Inter-Fund Accounts:		
Operating Fund Owes		
Public Service Enterprises	$1,264.01	
General Fund	790.15	
1938 Bond and Airport Improvement Clearing Fund Owes		
Public Service Enterprises	8,384.94	
General Fund	17.76	10,456.86
Deferred Credits:		
Rents billed in advance	$93.33	
Telegraph Agency Cash Receipts	1.93	
United Air Lines Transport Corporation Trust	450,000.00	450,095.26
SURPLUS		
Detail Schedule Annexed		3,056,829.12
		$6,685,624.84

SCHEDULE No. 2

INCOME ACCOUNT

For Twelve Months Ended June 30, 1941 and 1940

	Twelve (12) Months Ended June 30		Increase or
	1941	1940	*Decrease*
REVENUES			
Rental—Hangar	$14,691.97	$14,387.81	$304.16
Rental—Shop	2,284.00	4,495.75	*2,211.75*
Rental—Restaurant	3,299.02	2,679.16	619.86
Rental—Office	3,195.05	1,819.75	1,375.30
Rental—Locker	109.00	69.00	40.00
Rental—Land	2,400.00	1,906.67	493.33
Gasoline Sales Commission	1,213.74	1,125.48	88.26
Handling Charges	44,122.00	38,008.75	6,113.25
Telephone Income	355.53	332.81	22.72
Income from Resale of Electric Power	1,942.22	1,115.32	826.90
Telegraph Agencies—Commissions	695.08	0	695.08
Other Income	95.25	857.30	*762.05*
Total Revenues	$74,402.86	$66,797.80	$7,605.06
EXPENSES			
Salaries—Permanent	$43,588.55	$43,464.27	$124.28
Salaries—Temporary	9,675.07	1,648.00	8,027.07
Gas and Electricity	8,302.77	8,582.01	*279.24*
Telephone, Telegraph and Postage	3,677.33	2,853.23	824.10
Materials and Supplies	3,989.60	4,376.03	*386.43*
Provision for Bad Accounts	300.00	300.00	0
Provision for Depreciation	59,970.37	60,350.68	*380.31*
Traveling	421.20	594.21	*173.01*
Transportation of Employees	5,149.02	4,386.88	762.14
Maintenance and Repairs—Buildings and Structures	967.89	725.93	241.96
Maintenance and Repairs—Automobiles and Motorcycles	1,380.17	1,303.09	77.08
Maintenance and Repairs—Miscellaneous Equipment	995.79	1,536.17	*540.38*
Insurance	1,479.50	1,901.05	*421.55*
Miscellaneous Contractual Service	393.28	761.91	*368.63*
Taxes	4,155.40	3,221.47	933.93
Services—Bureau of Engineering	851.16	877.77	*26.61*
Contributions to Retirement System	1,982.15	1,675.13	307.02
Miscellaneous Expenses	36.77	378.39	*341.62*
Total Expense	$147,316.02	$138,936.22	$8,379.80
Net Loss	$72,913.16	$72,138.42	$774.74

Italic figures denote loss and deficiency.

SCHEDULE No. 3

SURPLUS ACCOUNT

For Twelve Months Ended June 30, 1941

Balance—June 30, 1940			$2,795,688.41
Add:			
Contributions from Taxes (Budget)	$365,788.00		
Adjustment of Budget Estimate	14.35		
	$365,802.35		
Less Surplus Applied to Budget	32,000.00		
Total Contribution from Taxes (Budget)		$333,802.35	
Taxes Added by Tax Redemption Bureau		.35	
Assessment of Real Property, Prior Years		1.51	
Premium on Bond Sale—Lots 7 and 8		463.00	
Personal Property Taxes and Penalties		64.26	
Additions and Corrections to Secured Tax Rolls		14.24	
Additions to Secured Penalties on Delinquency		5.55	
Additions to Secured Tax Rolls		.06	
Additions to Taxes, Penalties and Costs		20.61	
Additions to Agree with Hollerith Audit		60.47	
Surety Bond Premium		30.00	
		$334,462.40	
Deduct:			
Taxes, Penalties and Costs Cancelled	$408.53		
Loss for Twelve Months Ended June 30, 1941	72,913.16	73,321.69	
Net Additions to Surplus			261,140.71
Balance—June 30, 1941			$3,056,829.12

SCHEDULE No. 4

DETAIL OF INTER-FUND ACCOUNTS

June 30, 1941

			Balance June 30, 1941
Operating Fund Owes—San Francisco Water Department:			
6/30/41	Auto Insurance, 1940-1941	$490.55	
6/30/41	Service and Repairs to Automobiles—For Six Months	337.69	$828.24
Operating Fund Owes—P. U. C., General Office:			
6/30/41	Advertising During June, 1941		6.90
Operating Fund Owes—Employees' Retirement System:			
6/30/41	Contributions for June, 1941		154.08
Operating Fund Owes—Hetch Hetchy Water Supply, Power and Utilities Engineering Bureau:			
6/30/41	Office Engineering—For Six Months		435.77
Operating Fund Owes—General Fund:			
6/30/41	Pacific Gas and Electric Company—Bill for June, 1941		629.17
1938 Bond Fund Owes—San Francisco Water Department:			
6/30/41	Assembling Trailer for Transporting Boat	$76.03	
6/30/41	Cast Iron Pipe Fittings	9.86	85.89
1938 Bond Fund Owes—Hetch Hetchy Water Supply, Power and Utilities Engineering Bureau:			
6/30/41	Field Engineering for April, May, and June, 1941	$6,637.86	
6/30/41	Office Engineering for April, May, and June, 1941	1,231.75	7,869.61
Airport Improvement Clearing Fund Owes—P. U. C., General Office:			
6/30/41	Advertising—Contract No. 61	$4.44	
6/30/41	Advertising—Contract No. 62	13.32	17.76
Airport Improvement Clearing Fund Owes—Hetch Hetchy Water Supply, Power and Utilities Engineering Bureau:			
6/30/41	Office Engineering—Air Lines Terminal		429.44
	Total Inter-Fund Accounts		$10,456.86

SCHEDULE No. 5

1938 AIRPORT BONDS—OUTSTANDING

Amount	Numbers Inclusive	Maturity	Interest Rate
$65,000.00	571-635	January 1, 1942	2 %
31,000.00	636-666	January 1, 1942	1¾ %
65,000.00	667-731	January 1, 1942	1 7/10 %
19,000.00	732-750	January 1, 1942	1¾ %
105,000.00	751-855	January 1, 1942	2 %
65,000.00	856-920	January 1, 1943	2 %
31,000.00	921-951	January 1, 1943	1¾ %
65,000.00	952-1016	January 1, 1943	1 7/10 %
19,000.00	1017-1035	January 1, 1943	1¾ %
105,000.00	1036-1140	January 1, 1943	2 %
65,000.00	1141-1205	January 1, 1944	2 %
31,000.00	1206-1236	January 1, 1944	1¾ %
65,000.00	1237-1301	January 1, 1944	1 7/10 %
19,000.00	1302-1320	January 1, 1944	1¾ %
105,000.00	1321-1425	January 1, 1944	2 %
65,000.00	1426-1490	January 1, 1945	2 %
30,000.00	1491-1520	January 1, 1945	1¾ %
65,000.00	1521-1585	January 1, 1945	1 7/10 %
20,000.00	1586-1605	January 1, 1945	1¾ %
105,000.00	1606-1710	January 1, 1945	2 %
65,000.00	1711-1775	January 1, 1946	2 %
30,000.00	1776-1805	January 1, 1946	1¾ %
65,000.00	1806-1870	January 1, 1946	1 7/10 %
20,000.00	1871-1890	January 1, 1946	1¾ %
105,000.00	1891-1995	January 1, 1946	1½ %
65,000.00	1996-2060	January 1, 1947	2 %
30,000.00	2061-2090	January 1, 1947	1¾ %
65,000.00	2091-2155	January 1, 1947	1 7/10 %
20,000.00	2156-2175	January 1, 1947	1¾ %
105,000.00	2176-2280	January 1, 1947	1½ %
65,000.00	2281-2345	January 1, 1948	2 %
30,000.00	2346-2375	January 1, 1948	1¾ %
65,000.00	2376-2440	January 1, 1948	1 7/10 %
20,000.00	2441-2460	January 1, 1948	1¾ %
105,000.00	2461-2565	January 1, 1948	1½ %
65,000.00	2566-2630	January 1, 1949	2 %
30,000.00	2631-2660	January 1, 1949	1¾ %
65,000.00	2661-2725	January 1, 1949	1 7/10 %
20,000.00	2726-2745	January 1, 1949	1¾ %
105,000.00	2746-2850	January 1, 1949	1½ %
$2,280,000.00			

SCHEDULE No. 6

COMPARISON OF ACTUAL REVENUES AND EXPENDITURES WITH BUDGET ESTIMATED

Fiscal Year 1940-1941

DESCRIPTION	Month of June, 1941			Twelve (12) Months to June 30, 1941		
	Budget	Revenues Expenditures Accruals	Increase or *Decrease*	Budget	Revenues Expenditures Accruals	Increase or *Decrease*
Salaries—Permanent	$3,635.00	$3,635.00	.....	$43,620.00	$43,588.55	*$31.45*
Salaries—Temporary	850.00	493.46	*$356.54*	10,200.00	9,675.07	*524.93*
Contractual Services:						
Telephone, Telegraph, and Postage	375.00	505.68	130.68	4,500.00	3,677.33	*822.67*
Traveling	41.67	41.05	*.62*	500.00	421.20	*78.80*
Transportation of Employees	325.00	409.02	84.02	3,900.00	5,149.02	1,249.02
Maintenance and Repairs—Buildings and Structures	41.67	400.63	358.96	500.00	967.89	467.89
Maintenance and Repairs—Automobiles	93.33	398.30	304.97	1,120.00	1,380.17	260.17
Maintenance and Repairs—Miscellaneous Equipment	47.92	213.01	165.09	575.00	995.79	420.79
Miscellaneous Contractual Services	78.75	42.15	*36.60*	945.00	393.28	*551.72*
Heat, Light, and Power	666.67	629.17	*37.50*	8,000.00	8,302.77	302.77
Materials and Supplies	291.67	562.57	270.90	3,500.00	3,989.60	489.60
Insurance—Automobile	35.83	74.82	38.99	430.00	490.55	60.55
Contribution to Retirement System	155.83	159.92	4.09	1,870.00	1,982.15	112.15
Taxes	291.66	346.30	54.64	3,500.00	4,155.40	655.40
Services of Bureau of Engineering	83.33	435.77	352.44	1,000.00	851.16	*148.84*
Total Operating Expenditures	$7,013.33	$8,346.85	$1,333.52	$84,160.00	$86,019.93	$1,859.93
Bond Interest and Redemption:						
1938 Airport Bond Interest	$4,035.00	$3,411.65	*$623.35*	$48,420.00	$43,256.67	*$5,163.33*
1938 Airport Bond Redemption	.....	.....	.....	285,000.00	285,000.00	.....
Other Insurance	116.89	74.73	*42.16*	1,402.67	988.95	*413.72*
Total Expenditures	$11,165.22	$11,833.23	$668.01	$418,982.67	$415,265.55	*$3,717.12*
Total Revenues	$4,980.30	$5.167.85	$187.55	$55,900.00	$74,402.86	$18,502.86
Net Savings on Operating Budget Estimate			*$1,145.97*			$16,642.93

Italic figures denote loss and deficiency.

TRIAL BALANCE

June 30, 1941

		Debit	Credit
1000	Fixed Capital in Service	$2,771,481.06	
1099	Reserve for Depreciation		$398,550.02
2000	Cash—Treasurer—Operating Fund	24,470.14	
2100	Cash—Other—Revolving Fund	200.00	
2500	Accounts Receivable—Miscellaneous Debtors	9,962.86	
2504	Accounts Receivable—Uncollectible Accounts	2,766.44	
2510	Reserve for Bad Accounts		4,100.00
3204	Inter-Fund Accounts—San Francisco Water Department		828.24
3206	Inter-Fund Accounts—P. U. C.—General Office		6.90
3300	Inter-Fund Accounts—Employees' Retirement System		154.08
3302	Inter-Fund Accounts—Hetch Hetchy Water Supply, Power and Engineering Bureau		435.77
3308	Inter-Fund Accounts—General Fund		629.17
3315	Inter-Fund Accounts—General Fund—Prior Year Taxes	4,281.06	
3600	Deferred Charges—Materials and Supplies	1,331.63	
3606	Deferred Charges—Prepaid Insurance	1,905.91	
3612	Deferred Charges—Outstanding Encumbrances (Contra)	530.10	
5200	Accounts Payable—Warrants Outstanding		1,606.08
5207	Accounts Payable—Payrolls Outstanding		1,515.00
5210	Accounts Payable—General Creditors		2,712.90
5218	Accounts Payable—Outstanding Encumbrances (Contra)		530.10
5408	Deferred Credits—Rentals Billed in Advance		93.33
5412	Deferred Credits—Telegraph Agencies—Cash Receipts		1.93
5600	Surplus—Contributions from Taxes		1,835,847.61
5602	Surplus—Profit and Loss—Prior Years	688,710.65	
5606	Surplus—Federal Grants Earned		55,000.00
5610	Surplus—Miscellaneous Contributions		24,520.00
5612	Surplus—Emergency Reserve Contributions		9,800.17
5614	Surplus—From Donations in Connection with and Revaluation of Fixed Capital in Service		1,166,838.48
5615	Surplus—Contributions from 1938 Airport Bond Fund		3,297.15
5616	Surplus—Contributions to 1938 Airport Bond Fund	782.00	
5617	Surplus—Contribution to San Francisco Water Department	45.08	
	Total	$3,506,466.93	$3,506,466.93

TRIAL BALANCE

June 30, 1941

FIXED CAPITAL IN SERVICE

I. LAND	$804,722.00
II. LANDPLANE PORT	
1—Landing Area:	
1a—Land Reclamation and Improvement	418,394.00
1b—Field Drainage	108,521.00
1c—Drainage Control	77,282.00
1d—Runways, Taxiways, and Aprons	310,545.00
1e—Landing Field Lighting and Marking	63,946.00
1f—Radio	10,296.04
2—Utilities Roads and Parking Area:	
2a—Roads, Walks, Parking Areas, Fences, Etc.	115,073.00
2b—Water Supply System	8,850.00
2c—Sewerage System	10,333.00
2d—Power Supply System and Street Lighting	28,929.97
2e—Telephone System (Outside of Buildings)	4,441.00
2f—Gas Supply System	607.00
2g—Bridges and Culverts	16,689.00
2h—Landscaping	7,099.00
2i—Miscellaneous	1,375.00
3—Buildings	407,605.72
4—Equipment:	
4a—Office Furniture and Appliances	12,190.77
4b—Shop Tools and Building Maintenance Equipment	486.99
4c—Fire Fighting Equipment	5,152.49
4d—Motor Driven Equipment	8,535.00
4e—Meteorological Equipment	2,563.00
4f—Drainage Pump House Equipment	4,662.00
4g—Sewage Pump House Equipment	1,850.00
4h—Other Equipment	1,781.08
III. SEAPLANE PORT	
5—Land Reclamation and Improvement	339,551.00
	$2,771,481.06

AIRPORT IMPROVEMENT CLEARING FUND
and
TRIAL BALANCE

June 30, 1941

		Debit	Credit
100	Fixed Capital Under Construction	$2,093,997.63	
105	Fixed Capital in Service	210,405.31	
200	Cash—Treasurer—Bond Fund	483,217.61	
225	Cash—Treasurer—Airport Improvement Clearing Fund	837,544.63	
250	Accounts Receivable—Miscellaneous Debtors	2,408.98	
350	Inter-Fund Accounts—P. S. E.—San Francisco Water Department		$85.89
375	Inter-Fund Accounts—P. U. C.—General Office		17.76
415	Inter-Fund Accounts—Hetch Hetchy Water Supply, Power and Engineering Bureau		8,299.05
472	Deferred Charges—Outstanding Encumbrances (Contra)	643,771.50	
474	Deferred Charges—1938 Bond Fund—Due from Airport Improvement Clearing Fund	400,000.00	
502	1938 Bonds Authorized		2,280,000.00
510	Bond Interest Accrued—Not Due		20,470.00
600	Accounts Payable—General Creditors		12,553.82
605	Accounts Payable—Warrants Outstanding—1938 Bond Fund		8,313.01
606	Accounts Payable—Warrants Outstanding—Airport Improvement Clearing Fund		35,775.00
610	Accounts Payable—Contract Payments Due		88,552.44
615	Accounts Payable—Contract Retentions		13,814.16
620	Accounts Payable—Outstanding Encumbrances (Contra)		643,771.50
622	Accounts Payable—United Air Lines Transport Corporation		49,098.90
625	Accounts Payable—Payrolls Accrued		9,530.69
632	Deferred Credits—Airport Improvement Clearing Fund—Due to 1938 Bond Fund		400,000.00
634	Deferred Credits—United Air Lines Transport Corporation Trust		450,000.00
662	Bond Premium Lot 1—($650,000.00)—2% Bonds		714.35
663	Bond Premium Lot 2—($305,000.00)—1¾% Bonds		561.20
664	Bond Premium Lot 3—($650,000.00)—1 7/10% Bonds		1,885.00
665	Bond Premium Lots 6 and 7—($945,000.00)—2% and 1½%		463.00
700	Surplus—Contributions from Taxes		649,955.04
702	Surplus—Contributions from San Francisco Airport		782.00
703	Surplus—Contributions to San Francisco Airport	3,297.15	
		$4,674,642.81	$4,674,642.81

1938 AIRPORT BOND FUND

DETAIL OF

FIXED CAPITAL UNDER CONSTRUCTION

June 30, 1941

100-1	Interest During Construction	$100,425.04
100-2	Preliminary Expense	3,784.70
100-3	Legal Fees and Expenses	1,140.00
100-4	Plans and Specifications—General Office	53,009.69
100-5	Inspection, Supervision, and Field Engineering	94,536.45
100-6	Land Acquisition	38,398.80
100-7	Rights of Way and Easements	1,042.50
100-7½	Injuries and Damages	175.00
100-8	Construction Equipment, Tools, Etc.	130,810.32
100-9	Stores Inventory—(Materials and Supplies for Subsequent Distribution)	76,668.96
100-10	Earth and Rock Fill Construction	893,809.45
100-11	Improvements to Runways, Field, and Grounds—(Paving and Drainage)	323,174.57
100-12	Field Lighting	44,408.75
100-13	Buildings and Appurtenances	2,038.00
100-14	Service Extensions (Gas, Water, Telephone, Electric, and Sewer)	18,066.07
100-15	Seaplane Harbor and Channel	135,191.02
	Total 1938 Bond Fund	$1,916,679.32
110-1	Preliminary Expenses	$52.41
110-5	Architectural Services	27,000.00
110-6	Plans and Specifications—General Office	1,098.33
110-18	Furnishing and Driving Piles	33,850.73
110-19	Airline Terminal Buildings—Contract No. 57	111,360.50
110-20	Loading and Hauling Paving Material	3,956.34
	Total Airport Improvement Clearing Fund	$177,318.31
	Grand Total	$2,093,997.63

ENGINEERING AND CONSTRUCTION WORK

Fiscal Year 1940-1941

Contract No.	Contract or Project Designation	Contractor	Date Started	Time Allowed	Date Completed	Amount of Bid	Expended During Fiscal Year
52	Earth and Rock Fill—Reclaiming Northwest Field—45,000 Cubic Yards	Piombo Bros.	Oct. 29, 1940	45	Feb. 25, 1941	$19,800	$19,794.72
55	Driving Sheet Piling and Bents for Outfall Trestle—Pumping Plant	Healy-Tibbitt	Aug. 17, 1940	75	Sept. 16, 1940	3,470	3,570.00
56	Pile Foundation for Air Line Terminal	R. G. Clifford	Oct. 30, 1940	75	Jan. 30, 1941	32,500	33,554.08
57	Hangar, Administration Building, Engine Test Building, Oil Storage—Air Line Terminal	Barrett & Hilp	April 16, 1941	310		664,665	110,360.50
58	Roofing Hangars	Adam Arras & Son	April 19, 1941	90		14,974	.....
59	Improvements to Administration Building	Adam Arras & Son	May 22, 1941	60		5,187	.....
60	Paving Portion of Landing Field Extension	Eaton & Smith	May 29, 1941	60		61,788	26,781.00
61	Hangar Doors—Air Line Terminal	Byrne Doors, Inc.	Awarded June 17, 1941			19,834	.....
	Dredging Seaplane Harbor—U. S. Army Contract	American Dredging Co.				243,246	134,591.00*
	Dredger Rental for Reclamation and Drainage Channel	A. S. Dutra				3,375	3,375.00
	West Power Line	P. G. and E.				750	750.00
	Meter Check	P. G. and E.				25	25.00
	Total Contracts—Formal and Informal						$332,801.30†
	W. P. A. Projects 8718 and 52-12182	Day Labor and Construction	City—1938 Bond Fund				114,706.00§
			Federal Expenditures				489,862.00
	Total Value of Works Constructed During Fiscal Year 1940-1941						$993,219.30

*City's portion only.

†Contractor's earnings during fiscal year.

§The total of the City's contribution to W. P. A. Projects in force for the fiscal year 1940-1941 was $443,357, which is made up of $114,706 shown above to cover expenditures for materials, equipment rentals and services furnished by the City and $332,801 for the contract expenditures listed above, all of which are credited as Sponsor's contribution to the W. P. A. projects.

WEATHER DATA

Fiscal Year 1940-1941

	TEMPERATURE					PRECIPITATION			WIND		NUMBER OF DAYS		
	Average Daily Maximum	Average Daily Minimum	Average	Absolute Highest	Absolute Lowest	Total	Greatest in 24 Hours	No. Days .01 or More	Prevailing Direction	Average Velocity	Clear	Partly Cloudy	Cloudy
1940													
July	68.6	53.9	61.2	83	49	Trace	Trace	None	W	15.8	14	15	2
August	69.5	52.6	61.0	81	49	Trace	Trace	None	NW	13.5	16	12	3
September	72.9	55.1	64.0	83	49	0.21	0.11	3	W	9.1	13	10	7
October	70.3	51.1	60.7	84	44	0.75	0.47	4	WNW	9.2	15	6	10
November	64.2	44.5	54.4	76	35	1.05	0.50	8	WNW	5.8	11	5	14
December	61.2	44.3	52.8	73	30	6.52	1.30	15	E	8.1	10	4	17
1941													
January	58.6	45.0	51.8	67	37	7.13	1.54	16	SE	6.4	6	5	20
February	60.0	47.5	53.8	65	39	6.31	1.31	20	SE	8.1	1	7	20
March	64.5	48.2	56.4	77	42	4.02	1.27	9	WNW	9.5	9	7	15
April	61.0	47.8	54.4	71	40	4.18	1.92	9	W	12.7	10	9	11
May	64.1	49.2	56.6	92	40	5.41	1.26	14	NW	12.9	9	9	13
June	67.6	52.3	60.0	85	47	0.02	0.02	1	W	16.1	9	13	8
Fiscal Year 1940-1941	65.2	49.3	57.3	92	30	35.60	1.92	99	W	10.6	123	102	140

DATA FOR WIND ROSE—Fiscal Year 1940-1941

Number of Days Prevailing Wind Blew from Each Direction

N	3 days	E	17 days	S	16 days	W	105 days
NNE	2 days	ESE	11 days	SSW	10 days	WNW	60 days
NE	11 days	SE	37 days	SW	21 days	NW	46 days
ENE	5 days	SSE	8 days	WSW	12 days	NNW	1 day
						Total	365 days

TWIN FUNNELS

Much of the traffic handled by Municipal Railway flows by way of these two bridges spanning the Golden Gate and San Francisco Bay.

MUNICIPAL RAILWAY OF SAN FRANCISCO

WILLIAM H. SCOTT

Manager

WILLIAM H. SCOTT
Manager, Municipal Railway

General:

Municipal Railway on June 30, 1941, had completed another fiscal year's operation which now totals over twenty-eight and one-half years of furnishing transportation to the people of San Francisco. Passengers carried totaled 108,822,011, which figure has been exceeded but once in any fiscal year, in the year 1939-1940. Passenger revenue amounted to $4,057,698 as compared with $4,135,903 in 1939-1940 and $4,107,365 in 1938-1939, which latter two years were the highest in the railway's history. Net profit of $165,860 was a decrease of $159,121 from the previous year. Street car operation resulted in a profit of $275,589, and motor coach operation showed a loss of $109,729. The decrease in net profit of $159,121 from the previous year is accounted for principally by reason of a decrease in gross revenue of $78,868, an increase in operating expenses of $72,250, and an increase in the charge for depreciation of $7,659.

The sustained large volume of business enjoyed by the Municipal Railway during the year can be attributed in part to the difference in the rates of fares in effect on the Municipal Railway lines of 5 cents with a free transfer privilege and on the Market Street Railway Company lines of 7 cents with a free transfer privilege. The year's business also includes a total of ninety-one days of operation of the Golden Gate International Exposition from July 1, 1940, to September 29, 1940. This compares with a total of 158 days of Fair operation in the previous fiscal year.

The four new motor coach lines placed in operation during the year showed gross revenues totaling $114,246. These lines serve the Sunset, outer Mission, central Mission, and Buena Vista Park districts.

Service was furnished during the year to both the Ferry terminal and to the Bay Bridge terminal. The Bay Bridge loop, which was completed in January, 1939, was constructed by the Municipal Railway at a total cost of $154,046. The Market Street Railway Company uses the facilities of this loop jointly with the Municipal Railway, and in accordance with an agreement entered into with the Public Util-

SEVENTEENTH STREET RAMP
Here new trolley coaches swing in from service for inspection and repair.

SEVENTEENTH STREET RAMP
Rear view of buses entering ramp. Inspection shops at left adjoining barn.

ities Commission, the Market Street Railway Company pays the Municipal Railway an annual rental of 10 per cent of one-half of the cost of construction and in addition a portion of the maintenance expense in accordance with the use of facilities. The annual rental has been fixed at $7,702. This amount, together with the amount of $6,598 for their proportion of maintenance expense, was paid by the Market Street Railway Company to the Municipal Railway for the fiscal year ended June 30, 1941. The operation of this loop has resulted in a loss of short-haul business previously received from operation to the Ferry terminal and as nearly as can be determined amounts to a daily decrease of $600 in cash passenger receipts.

No new major appropriations for new construction or equipment were made during the year, but funds previously appropriated and held up pending a decision on a taxpayers' suit, as to the legality of the expenditures, were released on a withdrawal of the suit. Items thus affected were the construction of facilities and the purchase of nine trolley coaches for the Howard Street trolley coach line, purchase of land, and grading and construction of the Seventeenth Street storage yard, purchase of land, and construction of a new motor coach garage, and the purchase of twenty new motor coaches. A detailed statement of expenditures made to June 30, 1941, on the above items follows in this report.

Ten new motor coaches in addition to those previously owned and two new motor coaches replacing two old coaches turned in, were received and placed in operation. The Municipal Railway's motor coach fleet owned now totals forty-one motor coaches.

The five new-type modern street cars placed in operation in the previous year have continued to be exceedingly popular with the public, who have indicated that more cars of this type should be operated.

The net profit from operations for the fiscal year ended June 30, 1941, of $165,860 is after provision of $386,029 for depreciation and after providing the amount of $123,106 for a reserve for accidents and $62,083 for the payment of bond interest.

In considering the net income of $165,860 it must be remembered that the Municipal Railway still maintains a wage schedule higher than the average paid by private street railway companies and also provides for payment to men on sick leave and vacations, and matches their contributions to the retirement system. After providing for bond redemption there remained a surplus of $65,860. This surplus, together with such additional funds as may be accumulated in the future, will be available to enable the Public Utilities Commission to provide funds for future extensions and other capital expenditures.

Gross operating revenue for the fiscal year ended June 30, 1941, was $4,103,524, a decrease of $78,868 or 1.89 per cent.

Operating expenses (not including reserves or bond interest) amounted to $3,374,305, an increase of $72,250 or 2.19 per cent. Wage scales to per diem men in the mechanical departments were increased at a cost of $24,968 for the year. This amount, together with a large increase in sick leave costs and rising cost of materials, accounts for the major portion of the increase in operating expense.

Due to expenditures being made by the federal government in connection with national defense which has resulted in a revival of the shipbuilding business and which has affected many other lines of business, it is expected that the revenues of the Municipal Railway will also be greatly benefited.

INSPECTION PITS
Frontal view of new trolley coach over new Seventeenth Street division inspection pit.

INSPECTION PLATFORM
Rear view of coach over pit with hand-operated swinging platform in foreground.

Comparison of the budget estimate with actual results of operation for the fiscal year show an increase over estimated receipts of $42,886 and a decrease in estimated expenditures of $62,655, a net saving on the budget estimate of $105,541.

The only indebtedness now against the Municipal Railway property is the Municipal Railway bond issue of 1913 originally issued for $3,500,000, of which $1,200,000 is still outstanding, this amount to be amortized at the rate of $100,000 per year for the next twelve years.

The number of employees as of June 30, 1941, was 1,286, a decrease of ten from the same day in 1940.

The retention of the 5-cent fare with free transfer privilege on the Municipal Railway lines has afforded the car and motor coach riders of this system a large saving during the year. As the average fare on street railways in the United States is about 8.33 cents, it is conservative to estimate this saving to riders served by the Municipal Railway for the past year at over $2,700,000.

The total mileage operated by the Municipal Railway cars and motor coaches during the year was 10,266,038 miles, an increase of 207,722 miles or 2.07 per cent over the previous year.

Car and motor coach hours operated totaled 1,064,439 hours, an increase of 14,718 hours or 1.40 per cent as compared with the previous year. The total car and motor coach hours and mileage operated during the year were the greatest in the railway's history.

The total number of passengers carried was 108,822,011, a decrease of 2,483,516 or 2.23 per cent under the previous year.

Motor coach operations for the year resulted in a loss of $109,729 as compared with a loss of $147,540 for the preceding year. This is a decrease in net loss of $37,811, and is accounted for by an increase of $133,573 in revenue and an increase in expense of $95,762 over last year.

Motor coach mileage operated during the year was 1,862,159 miles, which was an increase of 544,361 miles over the previous year. Coach route No. 1, the Park-Monterey Boulevard route, decreased 13,019 miles; coach route No. 4, Embarcadero route, decreased 341 miles; coach route No. 5, Marina route, decreased 3 miles; coach route No. 6, Eureka-Diamond-Mission route, increased 25,656 miles; coach route No. 7, Miraloma route, increased 1,411 miles; old coach route No. 8, Sunset-Parkside route, and old coach route No. 10, Ocean View route, which were combined during the year into the new coach route No. 10, Sunset-Ocean View route, showed a combined increase of 2,226 miles; coach route No. 9, Bayshore route, increased 15,065 miles; coach route No. 11, Telegraph Hill route, increased 3,429 miles. The following four new motor coach routes operated mileages as follows: Route No. 2, Irving-Noriega route, 26,877 miles; route No. 3, Alemany Boulevard, 61,809 miles; route No. 12, Howard Street route, 398,835 miles; route No. 14, Roosevelt Way, 22,416 miles. The total motor coach passengers carried was 10,964,729, an increase of 3,443,902 or 45.79 per cent over last year.

Coach route No. 4, the Embarcadero route, operated at a profit of $8,776, which is the fourth year in the fourteen and one-half years of operation that this coach route has shown a profit and is due to the fact that the coaches and equipment in the capital setup for this route are fully depreciated and no depreciation nor interest on investment charges were included in the expenses for this year. In prior

NEW TROLLEY COACHES
Seven of nine new trolley coaches at Seventeenth Street yards shortly after arrival from factory.

years when depreciation and interest on investment were being charged, the average loss was $6,688 per year. In accordance with an agreement between the City and County of San Francisco and the State Board of Harbor Commissioners, the Municipal Railway is subsidized for the loss in any one year up to $18,000. As no loss is shown for the fiscal year, there is no payment due.

The Golden Gate International Exposition opened for its second year's operation on May 25, 1940, and closed on September 29, 1940. The exhibit of the Public Utilities Commission at this exposition, which was installed in 1939, was continued for a second year in 1940. Included in the exhibit there was portrayed in graphs and pictures many facts pertaining to the Municipal Railway's operation and accomplishments, including two fine models of street cars, one of the old type and one of modern type, both in the new blue and gold colors.

In 1938, in accordance with the provisions of section 128 of the charter, a survey of the Municipal Railway properties as of June 30, 1938, for the purpose of determining the amount of a reasonable annual depreciation provision, was made by accountants and engineers. As a result of this survey certain basic rates of depreciation and lives of properties were established. Application of these rates and property lives to the cost of road and equipment as of June 30, 1940, was made and resulted in a provision for depreciation for the fiscal year 1940-1941 of $386,-029, which is 3.67 per cent of the cost of road and equipment as of June 30, 1940. See Schedule II of this report. As of June 30, 1940, the balance in the depreciation reserve was $6,558,902.

A reserve for bad debts in the amount of $5,230.54 was provided to apply against an account receivable for advertising privileges owed by the advertising firm which held the contract for advertising privileges prior to October, 1940, and which is now in bankruptcy. As far as it can be determined, it appears unlikely that collection of any part of this amount will be made by the railway. Of the above amount reserved, $3,102.99 was charged to operations for the year 1940-1941, and $2,127.55 to surplus.

On June 15, 1941, a program of accident prevention and service improvement was inaugurated by the management of the railway with the view of lowering accident costs, improving service, cultivating good public relations through courtesy, and reducing operation costs. By constant personal instruction and periodical notices and bulletins to conductors, motormen, and coach operators on the best methods of operating passenger equipment and handling the public, it is felt that greatly reduced accident costs, lower costs of maintenance, including cost of power for propulsion, and general improvement of service will result.

The program has not been in effect a sufficient length of time in the period covered by this report to ascertain definite results, but it is confidently expected that the results sought will be attained after a reasonable trial period.

Twenty-Eight and One-Half Years' Operation:

The Municipal Railway at the close of this fiscal year on June 30, 1941, had completed twenty-eight and one-half years' operation. The total income from all sources from the start of operations on December 28, 1912, to June 30, 1941, amounted to $91,755,652, which amount includes $5,481,000 received from the sale of bonds, $1,568,262 contributed, $673,262 interest received on bonds owned and daily cash balances, $70,229 received as subsidy from the Board of State Harbor Commissioners, and $322,173 miscellaneous profit and loss items. Passenger and other revenue totaled $83,640,726.

The total expenditures other than capital expenditures from start of operations, December 28, 1912, to June 30, 1941, were $74,049,060, of which operating expenses amounted to $67,432,268, bond interest charges $4,356,934, payments for injuries and damages $2,106.189, and miscellaneous profit and loss charges $153,669. Bonds totaling $4,281,000 were retired out of a total of $5,481,000 issued.

Capital expenditures for road and equipment purchased amounted to $12,324,-262, of which $5,481,000 was derived from moneys received from bond sales, $5,107,352 from earnings and contributions, and $1,735,910 from the reconstruction and replacement fund.

Road and equipment retired totaled $1,411,593, of which $1,176,787 was charged to the depreciation reserve, and $234,806 charged to operating expenses or salvaged. This leaves a balance of road and equipment on hand and in use on June 30, 1941, of $10,912,669.

At June 30, 1941, net cash, receivables, and stores on hand, after deducting all liabilities, resulted in net free assets in the amount of $1,336,136. In the twenty-eight and one-half years of operation, the Municipal Railway carried 2,099,108,000 passengers. Passenger car and motor coach miles operated totaled 234,167,848, and car and motor coach hours operated totaled 24,327,412.

TROLLEY COACH TERMINAL
Plan X Terminal of the Howard Street trolley coach line alongside motor coach shuttle unit.

ORGANIZATION AND PERSONNEL

Management

William H. Scott.....Manager
Thomas M. Kennedy.....Secretary

Transportation

Eugene W. Clisbee.....Superintendent of Transportation
Duke C. Ormsby.....Assistant Superintendent of Transportation
Thomas A. Cox.....Division Superintendent
Lawrence G. Marshall.....Division Superintendent
Wesley R. Mason.....Senior Instructor
Joseph D. Brogan.....Supervisor of Schedules
John Casey.....Assistant Supervisor of Schedules

Claims

Thomas B. Johnson.....Claims Adjuster

Maintenance

William C. Bendel.....Superintendent of Equipment and Overhead Lines
Daniel P. Haggerty...Asst. Superintendent of Equipment and Overhead Lines
Frank J. Sheehan.....Maintenance of Way Engineer

Accounting

George C. Quinn.....Senior Accountant
Melvin F. Kraut.....Accountant
Merlin L. Henry.....Timekeeper

SEVENTEENTH STREET ADDITION
New inspection shop, ramp and storage facilities for Howard Street trolley coaches.

Auditing and Accounting:

The accounts of the Municipal Railway are maintained in accordance with the forms and requirements of the State Railroad Commission, insofar as these are applicable to publicly owned and operated utilities, and also in accordance with section 64 of the charter of the City and County of San Francisco. The centralized control system installed by the controller has been merged with these accounts, with the result that no obligation may be incurred without prior certification of the controller that funds are available to discharge said obligation when it becomes due.

The cash balances of the Municipal Railway funds were verified in the treasurer's office as of June 30, 1941, and with the exception of settlements for injuries and damages provision has been made for all ascertained liabilities outstanding on June 30, 1941.

The accounts and activities of the Municipal Railway are audited currently by the Municipal Railway auditing staff, and frequent audits on various phases of the railway operation are made by forces of the controller's office. In addition to the above, an annual audit is made by a private certified public accounting firm.

Maintenance of Track and Roadway:

The usual high standard of maintenance in effect on the Municipal Railway's properties has been maintained during the fiscal year with the result that on gen-

WAITING STATION
One of a series of new waiting stations made possible by W. P. A. project program.

eral maintenance and small replacements 1,503 lineal feet of single track was reconstructed, 44,160 square feet of concrete paving base seven inches deep was placed, and 88,973 square feet of asphalt paving renewed. The thermit welding process of repairing broken rails was continued during the year, and a total of 252 welds was made under general maintenance.

During the year 2.58 miles of overhead trolley wire was replaced at a cost of $2,617.

In addition to the above, there was performed during the year or contracted for under contracts numbers 191 and 194 and replacement job numbers R. J. 1378 and R. J. 1379 the following track work:

8,299 lineal feet of single track reconstruction

78,345 square feet of concrete paving base seven inches deep

81,293 square feet of asphalt paving

281 thermit weld joints

Maintenance Jobs:

Various items of unusual maintenance, cost of which was charged to operating expense, were set up as maintenance jobs. A complete statement of such jobs follows:

STATEMENT OF EXPENDITURES FOR MAINTENANCE JOBS

Amount expended prior to June 30, 1940—Jobs in Progress	$1,978.97
Amount expended July 1, 1940, to June 30, 1941	3,859.57
Total	$5,838.54

Maintenance Job No. 10—Setting back trolley poles on Eleventh Street from Market Street to Bryant Street due to street widening by W. P. A. forces. Total Municipal Railway cost	$2,162.60
Maintenance Job No. 12—Cost of completing work on one waiting station at Potrero Avenue and Army Street. Construction started by W. P. A. forces and completed by Municipal Railway. Total cost of completing	219.57
Maintenance Job No. 13—Setting back trolley poles—five on Presidio Avenue between Post and Geary streets, two on Post Street at Presidio Avenue. Also cost of removing four submerged gasoline storage tanks on Presidio Avenue. Work necessitated due to street widening by W. P. A. forces. Total cost	297.30
Maintenance Job No. 14—Setting back curb and sidewalks at Forest Hill Station to facilitate bus loading and relocating traffic signals. Total cost	666.33
Maintenance Job No. 15—Installing three negative cables into Station "I" from Eighth Street and removing negative cables from Minna Street to Station "I". Total cost	416.88
Maintenance Job No. 16—Replacing feeder risers Nos. 672, 673, and 674 at the northeast corner and southeast corner of Chestnut and Laguna streets. Total cost	327.03
Maintenance Job No. 17—Replacing old electric light fixtures and replacing substandard wiring in accounting offices on third floor of Geary Street division. Total cost	800.83
Maintenance Job No. 18—Painting accounting offices on third floor, locker rooms on mezzanine floor, receivers', dispatchers' and gilley rooms on first floor, and stairways at Geary Street division. Total cost	948.00
	$5,838.54

New Construction and Additions:

In February, 1941, funds for new construction and additions, which had been previously held up pending court action, were released due to the abandonment of appeal in the matter of Luther L. Putnam vs. City and County of San Francisco et al., Superior Court No. 292846, and a dismissal in the matter of Ernestine Uhl vs. City and County of San Francisco et al., Superior Court No. 287532. Funds released included funds for construction of the Howard Street trolley coach line and for the purchase of nine trolley coaches, funds for construction of a new motor coach garage, funds for the purchase of twenty new motor coaches, funds for grading and construction at the Seventeenth Street storage yard, and other miscellaneous items.

NEW MOTOR COACH
One of 10 new A. C. F. six-cylinder coaches bought to establish new bus routes.

Major items of expenditure, new construction and additions to June 30, 1941, are as follows:

Under extension and betterment jobs Nos. 238 and 238-1, for the purchase of nine trackless trolley coaches, expenditures made to June 30, 1941, totaled $117,495.

Under extension and betterment jobs Nos. 239, 239-A, 239-1, and 239-2, and Municipal Railway contracts Nos. 186, 188, 196, and 201, covering construction of pole lines and feeders, overhead wiring, storage and service structures, and engineering for the Howard Street trackless trolley coach line, expenditures made to June 30, 1941, totaled $68,174.

Under extension and betterment job No. 244, and Municipal Railway contract No. 185, for grading and construction of the new Seventeenth Street storage yard, expenditures made to June 30, 1941, totaled $22,631.

Under extension and betterment jobs Nos. 245 and 245-A, ten single-deck transit-type coaches were purchased, the total cost, all of which was expended as of June 30, 1941, amounting to $80,083.

A complete statement of expenditures for construction and new equipment follows:

STATEMENT OF EXPENDITURES FROM OPERATING FUND OR CONTRIBUTED FOR ADDITIONS, BETTERMENTS AND NEW CONSTRUCTION

Amount expended 1939-1940—Extension and Betterment and Construction Jobs in Progress July 1, 1940	$55,743.75
Amount expended 1940-1941—Extension and Betterment and Construction Jobs and Direct Charges to Road and Equipment	239,284.24
Amount Contributed	.....
Total	$295,027.99

The various jobs and items making up this total are listed below:

Construction Job No. 143—Construction of loud speaker system at the Geary Street division. Total cost		$168.40
Construction Job No. 144—Installation of glass panels in exit side at open end of 212 street cars—Incomplete—Cost to June 30, 1941		1,520.91
Construction Job No. 145—Installation of one steel trolley pole at southeast corner of Columbus Avenue and Jackson Street—Incomplete—Cost to June 30, 1941		52.00
Extension and Betterment Job No. 237—Construction of bus garage including engineering cost—Incomplete—Cost to June 30, 1941		369.28
Extension and Betterment Jobs Nos. 238 and 238-1—Purchase of nine trackless trolley coaches for Howard Street trolley bus line including engineering amount transferred to Road and Equipment in 1940-1941	$117,298.82	
Amount in Progress June 30, 1941	195.99	
Incomplete cost to June 30, 1941		117,494.81
Extension and Betterment Jobs Nos. 239, 239-A, 239-1, and 239-2—Municipal Railway contracts Nos. 186, 188, 196, and 201, construction of pole lines, feeders, overhead wiring, storage and service structures, and engineering for the Howard Street trackless trolley line—Incomplete—Cost to June 30, 1941		68,174.32
Extension and Betterment Job No. 244—Grading and construction Seventeenth Street storage yard—Municipal Railway contract No. 185—Incomplete—Cost to June 30, 1941		22,631.47
Extension and Betterment Jobs Nos. 245 and 245-A—Purchase of ten single deck transit type A. C. F. motor coaches, seating capacity 26 passengers. Total cost		80,083.40
Extension and Betterment Job No. 247—Installation of additional feeders on the north side of Taraval Street between Twentieth Avenue and Forty-sixth Avenue. Total cost		3,253.92
Purchase of miscellaneous office machines and furniture		169.79
Purchase of new lockers for platform employees		387.26
Purchase of bus transmission for White motor coaches		608.47
Purchase of miscellaneous bus garage equipment		61.71
Purchase of miscellaneous shop equipment		52.25
Total		$295,027.99

ROLLING STOCK INSPECTION
Shop crew makes regular inspection of all cars, streamliners included.

Reconstruction and Replacements:

Major track reconstruction and equipment replacement jobs during the year were as follows:

Under contract No. 194, replacement job No. 1378, 4,535 feet of single track was reconstructed on Geary Street between Divisadero and Lyon Streets, and on Geary Boulevard between Jordan and Third Avenues. Total provision for this work was $82,341, of which amount $35,358 was expended to June 30, 1941.

Under contract No. 191, replacement job No. 1379, 3,764 feet of single track was reconstructed on Geary Street between Fillmore Street and Divisadero Street at a total cost of $57,563.

Under contract No. 176, replacement job No. 1380, replacement was made of 12,376 feet of single track on Geary Street between Powell and Fillmore Streets, including crossings at Powell Street, Jones Street, Leavenworth Street, and Larkin Street, branch-off at Polk Street, and cross-over west of Van Ness Avenue. About 50 per cent of this work was performed in the previous fiscal year, and the balance in the fiscal year ended June 30, 1941. Total cost of replacement was $190,883.

Under replacement job No. 1394, part of crossing at Stockton and O'Farrell Streets was replaced by forces of the Municipal Railway at a total cost of $4,119.

Under replacement job No. 1404, part of crossing at Columbus Avenue and Taylor Street was replaced by forces of the Municipal Railway at a total cost of $6,773.

Under replacement job No. 1415, part of special track castings and rail at Geary Street and Van Ness Avenue was replaced by Municipal Railway forces at a total cost of $2,029.

Under replacement job No. 1422, track castings and rails in branch-off at Columbus Avenue and Union Street were replaced by Municipal Railway forces. Total estimated cost was $2,602. Incomplete costs to June 30, 1941, amounted to $2,358.

Under replacement job No. 1400, one Chevrolet one-half ton express, Municipal Railway No. 0034, was replaced by one new Chevrolet one-half ton express. Municipal Railway No. 0039. Total cost, $748.

Under replacement job No. 1401, one five-ton White dump truck, Municipal Railway No. 0011, was replaced by one auto car four-yard truck, Municipal Railway No. 0040. Total cost, $4,831.

Under replacement job No. 1409, two White 29-passenger motor coaches, over seven years old, Municipal Railway Nos. 032 and 033, were replaced by two new 31-passenger A. C. F. motor coaches, Municipal Railway Nos. 073 and 074. Total cost, $20,237.

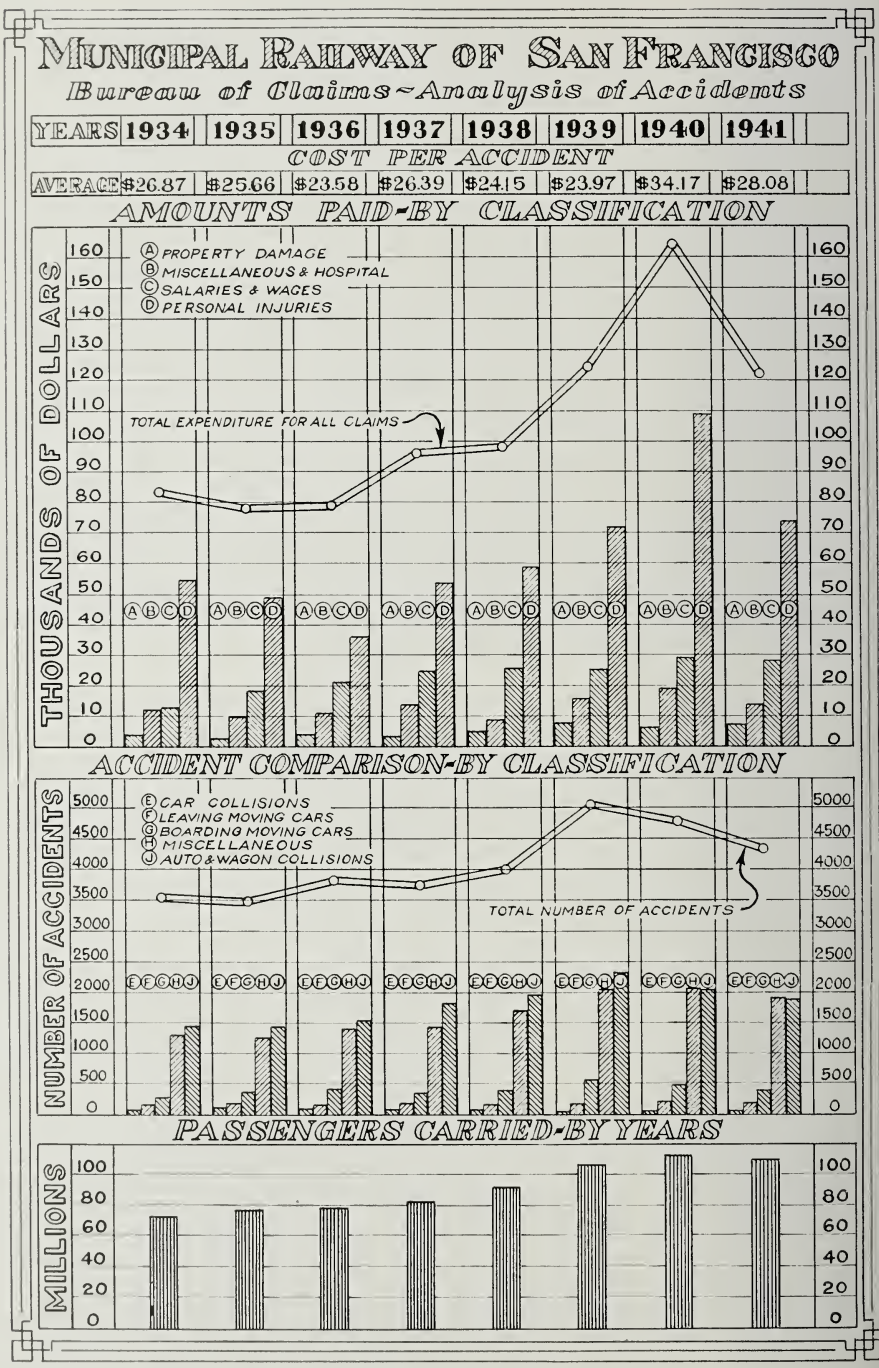
A complete statement of expenditures for reconstruction and replacements for all classes of Municipal Railway properties follows:

STATEMENT OF EXPENDITURES FOR RECONSTRUCTION AND REPLACEMENTS

Amount expended 1938-1939 (Replacement jobs in progress July 1, 1939)	$915.66
Amount expended 1939-1940 (Replacement jobs in progress July 1, 1940)	85,381.14
Amount expended 1940-1941 Reconstruction and Replacement Fund—Exhibit "C"	261,932.57
Amount expended in 1940-1941 Operating Fund	73.86
Turn-in value received on replacement jobs 1940-1941	1,487.50
Total	$349,790.73

The various jobs making up this total are listed below:

Replacement Job No. 1346—Replacement of five street cars—Completed total cost	$110,947.65	
Less amount transferred to Road and Equipment as of June 30, 1940	108,250.74	
Amount transferred to Road and Equipment as of June 30, 1941		$2,696.91
Replacement Job No. 1378—Contract No. 194—Reconstructing tracks on Geary Street from Divisadero to Lyon Street and from Jordan to Third Avenue—Incomplete cost to June 30, 1941		35,357.77


MUNICIPAL RAILWAY OF SAN FRANCISCO
Bureau of Claims - Analysis of Accidents
YEARS 1934 1935 1936 1937 1938 1939 1940 1941
COST PER ACCIDENT
AVERAGE $26.87 $25.66 $23.58 $26.39 $24.15 $23.97 $34.17 $28.08
AMOUNTS PAID-BY CLASSIFICATION
THOUSANDS OF DOLLARS
A PROPERTY DAMAGE
B MISCELLANEOUS & HOSPITAL
C SALARIES & WAGES
D PERSONAL INJURIES
TOTAL EXPENDITURE FOR ALL CLAIMS
ACCIDENT COMPARISON-BY CLASSIFICATION
NUMBER OF ACCIDENTS
E CAR COLLISIONS
F LEAVING MOVING CARS
G BOARDING MOVING CARS
H MISCELLANEOUS
J AUTO & WAGON COLLISIONS
TOTAL NUMBER OF ACCIDENTS
PASSENGERS CARRIED-BY YEARS
MILLIONS

Replacement Job No. 1379—Contract No. 191—Reconstructing tracks on Geary Street from Fillmore to Divisadero Street. Total cost..... 57,562.51

Replacement Job No. 1380—Contract No. 176—Reconstructing tracks on Geary Street from Powell to Fillmore Street. Total cost..... 190,883.45

Replacement Job No. 1389—Replacement of overhead wiring—January 1, 1940, to June 30, 1940. Total cost..... 2,377.80

Replacement Job No. 1390—Replacement of paving—January 1, 1940, to June 30, 1940. Total cost..... 2,218.66

Replacement Job No. 1394—Replacement of part of crossing, Stockton and O'Farrell streets. Total cost..... 4,119.16

Replacement Job No. 1396—Switch and connecting rail in branch-off at Geary Street and Masonic Avenue. Total cost..... 314.11

Replacement Job No. 1399—Frog and rail in south side of middle loop at Ferry. Total cost..... 376.83

Replacement Job No. 1400—Replacement of Chevrolet light delivery express—Municipal Railway No. 0034. Total cost..... 747.78

Replacement Job No. 1401—Replacement of one five-ton White dump truck — Municipal Railway No. 0011 — by one Autocar four-yard truck—Municipal Railway No. 0040. Total cost..... 4,830.70

Replacement Job No. 1402—Replacement of casting inbound Municipal Railway track with spur track of Market Street Railway entering Valencia Street yard. Total cost..... 550.88

Replacement Job No. 1403 — Frog in branch-off Market Street into Geary Street. Total cost..... 550.28

Replacement Job No. 1404—Part of crossing Columbus Avenue and Taylor Street. Total cost..... 6,772.65

Replacement Job No. 1405—Overhead wiring—July 1, 1940, to December 31, 1940. Total cost..... 276.41

Replacement Job No. 1406—Replacement of paving—July 1, 1940, to December 31, 1940. Total cost..... 1,409.75

Replacement Job No. 1407-A—Replacement of Underwood typewriter. Total cost 96.36

Replacement Job No. 1409—Replacement of two White motor coaches Municipal Railway Nos. 032 and 033—by two A. C. F. motor coaches —Municipal Railway Nos. 073 and 074. Total cost..... 20,237.22

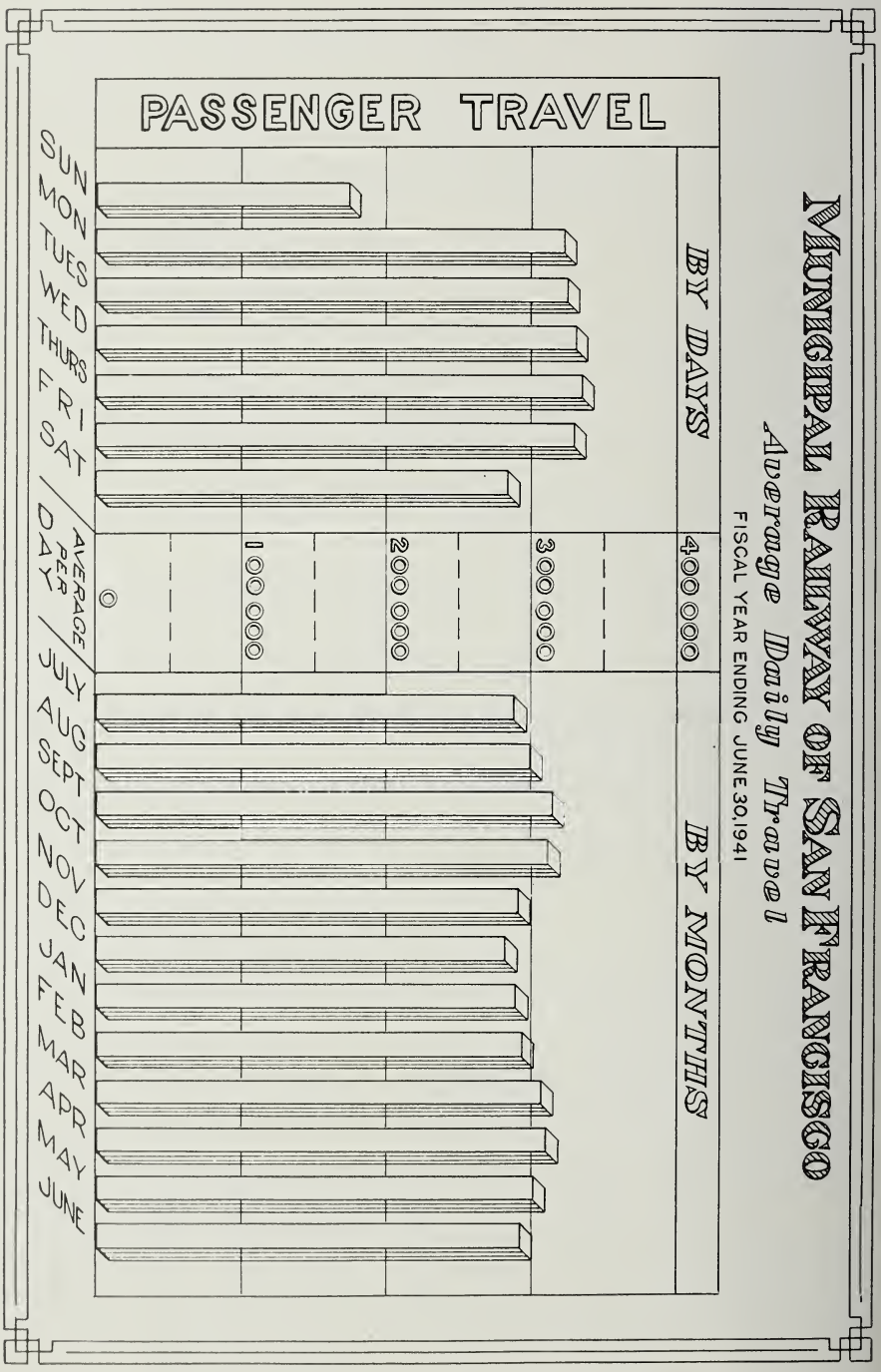
Replacement Job No. 1411—Replacement of part of crossing—Market and Twelfth streets. Total cost..... 1,262.22

Replacement Job No. 1412 — Part of crossing at Geary and Kearny streets. Total cost..... 523.53

Replacement Job No. 1413—Replacement of tee rail with girder rail and lowering grade at Nineteenth and Holloway avenues. Total cost 1,512.91

Replacement Job No. 1414—Part of crossing—Potrero Avenue and Sixteenth Street. Total cost..... 509.91

Replacement Job No. 1415—Track castings and rails at Geary Street and Van Ness Avenue. Total cost..... 2,028.73


MUNICIPAL RAILWAY OF SAN FRANCISCO
Average Daily Travel
FISCAL YEAR ENDING JUNE 30, 1941
BY DAYS
BY MONTHS
PASSENGER TRAVEL
400 000
300 000
200 000
100 000
0
SUN
MON
TUES
WED
THURS
FRI
SAT
AVERAGE PER DAY
JULY
AUG
SEPT
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUNE

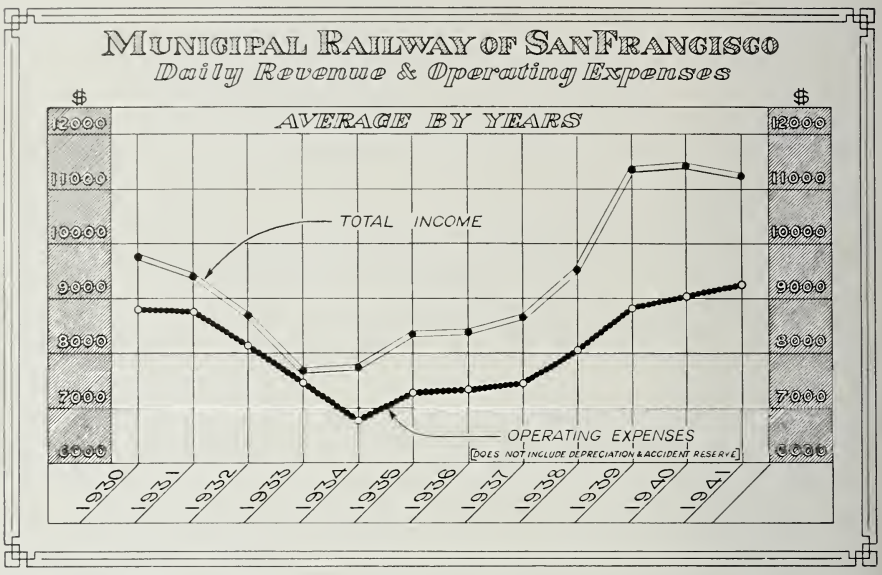
Replacement Job No. 1416—Replacement of overhead wiring—January 1, 1941, to June 30, 1941. Total cost	2,340.90
Replacement Job No. 1417—Replacement of paving—January 1, 1941, to June 30, 1941. Total cost	2,857.14
Replacement Job No. 1420—Replacement of about 148 feet of rail on Stockton Street south of Washington Street. Total cost	889.14
Replacement Job No. 1421—Replacement of underground feeder No. 1473. Total cost	784.59
Replacement Job No. 1422—Castings and rails in branch-off at Columbus Avenue and Union Street—Incomplete. Cost to June 30, 1941	2,357.09
Replacement Job No. 1424—120 feet track, rails, ties, and paving—Market Street between Sutter and Beale streets. Total cost	947.24
Replacement Job No. 1425—Mate casting—Brighton Avenue near Grafton. Total cost	432.30
Replacement Job No. 1426—Replacement of casting on Market Street with spur track of Market Street Railway Company to Valencia Street yard. Total cost	511.43
Replacement Job No. 1429—Removing of crossing and replacing with straight rails and repaving at Union and Fillmore streets—Incomplete. Cost to June 30, 1941	838.27
Replacement Job No. 1431—Reconstructing tracks on Geary Street from Third to Tenth avenues—Incomplete. Cost to June 30, 1941	13.92
Replacement Job No. 1434—Replacing switch casting and guard rail at cross-over—Eleventh Street between Market and Mission streets—Incomplete. Cost to June 30, 1941	602.18
Total	$349,790.73

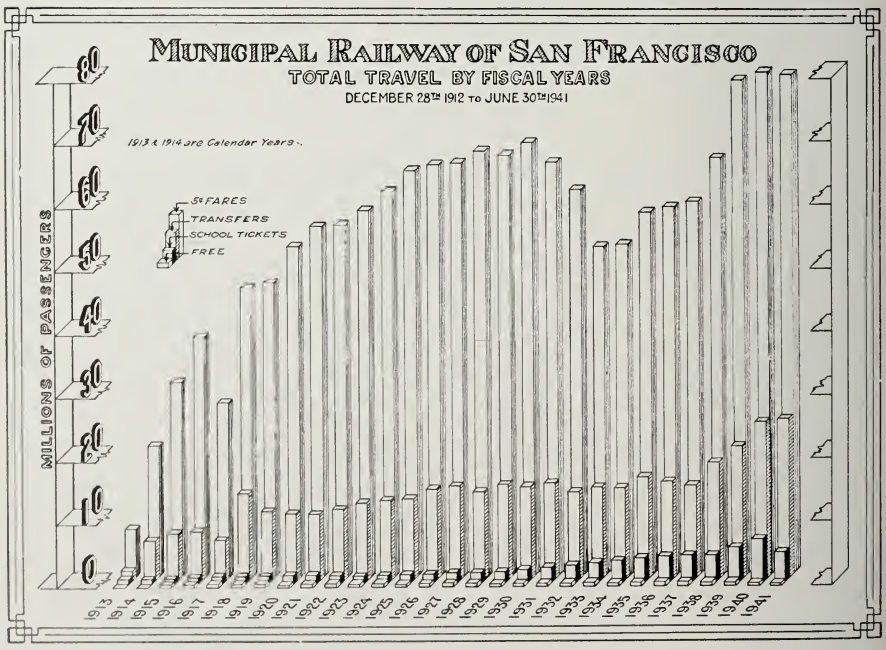
Transportation:

The usual high standard of service has been furnished by the transportation department, and every effort has been made to adjust service to meet the unusually heavy passenger traffic conditions due to the continued 5-cent fare on the Municipal Railway lines. On Geary Street, additional difficult traffic conditions continued due to reconstruction work on tracks from Powell Street to Third Avenue.

During the fiscal year, the railway handled traffic to the Golden Gate International Exposition for a total of 91 days. As in previous years, schedules were arranged to serve both the Bay Bridge terminal and the Ferry terminal to the best advantage with present facilities.

During the year, 189 changes were made in the time tables of the various lines. Street car operation decreased a total of 33,272 hours from the previous fiscal year, which decrease was spread over all street car lines. Motor coach hours increased 47,991 hours, due principally to the inauguration of four new motor coach routes. These new routes are: Route No. 2, Irving-Noriega route, serving the Sunset district between Twenty-second and Thirty-fifth Avenues; route No. 3, Alemany Boulevard route, serving the outer Mission district via Alemany Boulevard and Mission Street and connecting with street car line "J"; route No. 12 on Howard Street, serving the central Mission district and operating from the Em-


MUNICIPAL RAILWAY OF SAN FRANCISCO
Daily Revenue & Operating Expenses
$
$
AVERAGE BY YEARS
12000
11000
10000
9000
8000
7000
6000
TOTAL INCOME
OPERATING EXPENSES
(DOES NOT INCLUDE DEPRECIATION & ACCIDENT RESERVE)
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941


MUNICIPAL RAILWAY OF SAN FRANCISCO
TOTAL TRAVEL BY FISCAL YEARS
DECEMBER 28TH 1912 TO JUNE 30TH 1941
1913 & 1914 are Calendar Years.
MILLIONS OF PASSENGERS
80
70
60
50
40
30
20
10
0
5¢ FARES
TRANSFERS
SCHOOL TICKETS
FREE
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941

barcadero to Army Street and South Van Ness Avenue, and route No. 14, Roosevelt Way route, serving the Buena Vista Park district and connecting with the Municipal Railway street car lines at Church and Market Streets.

Old coach routes numbers 8 and 10 were combined into the new route No. 10, Sunset-Ocean View route, which furnishes through service between the Sunset and Ocean View districts. On September 7, 1941, operation of motor coaches on route No. 12, Howard Street route, will be changed to trolley coach operation, which route will then be designated as line "R". Elsewhere in this report will be fund detailed routing of all motor coach routes.

The total number of passengers carried during the fiscal year amounted to 108,822,011, and has only been exceeded in one other fiscal year, 1939-1940, which showed a total of 111,305,527 passengers carried.

Maintenance of Equipment:

The equipment of the Municipal Railway has been maintained in first-class condition, 40 car bodies and one motor coach having been overhauled and painted and 52 cars rewheeled. Motors totaling 415 have been overhauled and repaired, as were 40 units of electrical control apparatus.

During the year 53 propulsion armatures and 11 air compressor armatures were rewound. The usual policy of cleaning cars daily and disinfecting weekly has been maintained throughout the year.

In connection with the painting of street cars and coaches, the new combination of blue and gold colors is being used in place of the old "municipal gray" used prior to 1940.

Bureau of Claims:

The ratio of accidents to the number of passengers carried remains fairly constant, .00004 in the period ending June 30, 1940, and .000039 in the period ending June 30, 1941.

The expiration of the franchise of the Market Street Railway Company to operate street cars on Howard Street and South Van Ness Avenue, and the substitution of trolley coach operation by the Municipal Railway, required the tearing up of the Market Street Railway Company's rails, stringing of double trolley wires, and resurfacing the right-of-way to accommodate the new trolley coaches to be installed in the late summer of 1941.

These conditions created an extra hazard on this busy thoroughfare, but the temporary operation of motor coaches handled the situation creditably throughout.

The adoption of a policy of sending line instructors to the front and rear platforms of moving cars, to instill the idea of safety, with seasoned motormen and conductors, as well as new platform men, has already borne fruit as indicated by the reduction in the number of accidents during the period here reported.

Accidents have been classified as in previous reports as follows:

> Those in which the Municipal Railway was directly involved and those occurring on or near the right-of-ways, but in which the Municipal Railway cars were not involved.

The following statement shows the accidents filed during the year so classified:

CLASSIFICATION OF ACCIDENTS

Municipal Railway Involved

		Number of Accidents
1.	Automobile collisions	1,874
2.	Injuries to passengers	1,356
3.	Injuries to automobile occupants	(51)
4.	Injuries to pedestrians	78
5.	Damage to wearing apparel	163
6.	Street car collisions	41
7.	Broken windows	198
8.	Deaths	7
9.	Employees injured	129
10.	Miscellaneous	419

Near Track
Municipal Railway Not Involved

11.	Automobile collisions	27
12.	Pedestrians struck by automobiles	52
	Total	4,344

The bureau of claims has continued its policy of endeavoring to have an investigator visit every person who has met with an injury by reason of the operation of the Municipal Railway cars or coaches, regardless of the liability for that injury. It has sought to impress upon those visiting or communicating with the bureau that the Municipal Railway has a scrupulous concern for the welfare of the citizens of San Francisco as regards their safety as passengers on the Municipal Railway street cars or coaches or on the streets traversed by its lines. At the same time, however, the bureau of claims is watchful of the property and resources of this important utility against fraudulent claims for alleged injuries or damages.

The bureau of claims, under the direction of the Manager of Utilities, has continued its cooperation with other bureaus and departments in the investigation and settlement of claims against all the utilities under the jurisdiction of the Public Utilities Commission.

COMPARATIVE STATEMENT OF ACCIDENT REPORTS
FISCAL YEARS ENDED JUNE 30, 1941, AND JUNE 30, 1940

	Geary Division		17th Street Division	
	Fiscal Year Ended June			
	1941	1940	1941	1940
Street car collisions	21	21	20	27
Auto and wagon collisions	953	1,012	921	1,018
Boarding moving cars	162	237	230	232
Alighting from moving cars	70	117	82	86
Miscellaneous	989	1,152	896	899
Total	2,195	2,539	2,149	2,262

Court Statistics:

During the fiscal year ended June 30, 1941, cases tried in the several courts show a considerable reduction in the sums sued for and amounts awarded, as compared with the record of the previous fiscal period.

	No. of Cases	Amount Sued For	Verdict for Claimant	Percentage Paid on Amount of Claim
Superior Court	14	$177,375.62	$15,190.00	8.56%
Municipal Court	22	26,412.11	3,281.51	12.42%
Small Claims Court	6	108.13	51.00	47.16%
Total	42	$203,895.86	$18,522.51	9.08%

GENERAL BALANCE SHEET

EXHIBIT "A"

For the purpose of more clearly portraying the assets and liabilities of the Municipal Railway, the balance sheet in this year's report is shown in narrative form instead of the conventional form:

PROPERTIES—LESS DEPRECIATION		$4,314,598.05
Composition of this amount is as follows:		
Road and Equipment	$10,780,556.15	
Analysis of this amount is given in Schedule I which reflects the additions and retirements for the fiscal year. In accordance with the survey of properties for depreciation purposes the sum of $386,028.57 has been reserved for depreciation during the current year.		
New Construction in Progress	92,943.97	
This item represents costs in connection with the construction of Howard Street trolley bus line, grading and construction of the Seventeenth Street storage yard, glass panels on street cars, and preliminary engineering costs for construction of a bus garage, which are incomplete as of June 30, 1941.		
	$10,873,500.12	
Deduct:		
Reserve for Accrued Depreciation	6,558,902.07	
This is the amount charged to operations and credited to depreciation of properties from December 28, 1912, to June 30, 1941, less charges for retirements. Included in the above, in addition to the regular charge for depreciation during the year, is $4,425.01 which resulted from an audit examination of replacement jobs written off, the charge being made to surplus.		
Net value of properties as above	$ 4,314,598.05	

CASH WITH THE TREASURER		$1,314,116.44

The funds comprising this amount are as follows:

Municipal Railway Bond Redemption Fund	$ 3,800.00	
Municipal Railway Bond Interest Fund	10,167.50	

The above two funds are maintained by transfer to meet principal maturities and bond interest as they become due.

Municipal Railway Operating Fund	764,797.79	

This fund is maintained for payment of normal expenses of operation and also contains unallocated reserves of the railway.

Surplus Fund	218,318.98	

This fund is maintained in accordance with provisions of charter section 127.

Reconstruction & Replacement Fund	310,532.17	

For analysis of this fund see Exhibit "C." The balances in all of the above funds have been reconciled with the records of the treasurer of the City and County of San Francisco by the accounting staff of the Municipal Railway.

Revolving Fund	6,500.00	

This fund is maintained for payment of small accident claims and expenses in connection with special investigation. It is in the custody of the following officers:

Mr. Wm. H. Scott, Manager	$1,000.00
Mr. Thos. B. Johnson, Claims Adjuster	5,500.00
	$6,500.00

These funds have been reconciled with certifications obtained from the depositary and found to be in balance.

Total Cash on Hand	$1,314,116.44	
MISCELLANEOUS ACCOUNTS RECEIVABLE		$10,340.81
Due from Pacific Gas & Electric Company:		
Pole Rental	$679.00	
Due from Market Street Railway Company:		
Track rental and proportion of tower expense at Bay Bridge terminal loop	5,109.81	
Due from R. C. Scott Advertising Company:		
Advertising in cars and buses	5,230.54	
Due from Fielder-Sorenson Company:		
Advertising in cars and buses	4,550.00	

Due from Shell Oil Company:		
Pole rental	2.00	
	$15,571.35	
Less: Reserve for Bad Debts (R. C. Scott Advertising Company—Bankrupt)	5,230.54	
Total	$10,340.81	
INTER-FUND ACCOUNTS RECEIVABLE		56,277.43
Due from General Fund—Mayor:		
Amount provided from Municipal Railway funds for plans in connection with the solution of traffic problems	$55,000.00	
Due from General Fund—Retirement System:		
Investigation of circumstances surrounding deaths and disabilities of firemen and policemen	20.24	
Due from General Fund—Interest Receivable:		
Accrued interest due to the Municipal Railway for the period April, May and June, 1941, on the daily bank balances placed on deposit by the city treasurer. In accordance with ordinance 9870 (N.S.) Municipal Railway funds are deposited with the treasurer who in turn places same on deposit with the various banks	654.10	
Due from Hetch Hetchy Water Supply:		
Unexpended amount of money advanced to Hetch Hetchy Water Supply	603.09	
Total	$56,277.43	
INTRA-FUND ACCOUNTS RECEIVABLE		$87,773.91
Amounts as follows are due between funds of the Municipal Railway:		
Due to Reconstruction and Replacement Fund from Operating Fund for loan to purchase rails, etc.	$82,170.41	
Due to Operating Fund from Reconstruction and Replacement Fund for labor and materials used on reconstruction and replacement jobs	5,603.50	
Total	$87,773.91	
DEFERRED CHARGES		428,442.04
Materials and Supplies at Carhouse and Storage Yard	$214,642.20	

A physical inventory was taken of the materials at the storage yard by members of the engineering department. Minor over and short adjustments were made to bring the physical count into agreement with the general ledger account.

A perpetual inventory is maintained of the materials in the carhouse storeroom which results in material counts being made at frequent intervals and adjustments as necessary being made throughout the year. Materials on hand as of June 30, 1941, were found to be in accord with the records, and all prices, extensions and footings of the inventory have been checked.

Materials and Supplies Contributed	336.69	
This represents the balance of stores on hand which were received by reason of the abandonment of the Gough Street line and Howard Street line by the Market Street Railway Company.		
Replacement Jobs in Progress	39,169.23	
Contract, P.O., S.O., and O.W. Liability (Contra)	174,213.09	
This item represents an unadjusted debit for contract, purchase order, service order, and order for work liability on which no materials have been delivered nor services performed, but contracted for and is offset under accounts payable by a similar amount.		
Miscellaneous	80.83	
Total	$428,442.04	

BONDED DEBT		$1,203,800.00
Funded Debt Unmatured	$1,200,000.00	

The following is a recapitulation of the unmatured funded debt:

Municipal Railway 5%—1913

Total issue	$3,500,000.00
Matured to June 30, 1941	2,300,000.00
Unmatured June 30, 1941	1,200,000.00
Date of final maturity	Dec. 1, 1952

Matured Funded Debt Unpaid	3,800.00	
Bonds in the amount of $3,800.00 had matured prior to June 30, 1941, but had not been presented for redemption on that date.		
Total	$1,203,800.00	

BOND INTEREST PAYABLE	10,167.50

Interest coupons matured but not presented for payment on June 30, 1941.

BOND INTEREST PAYABLE—ACCRUED		5,000.00
Interest accrued to June 30, 1941, but not due until December 1, 1941.		
ACCOUNTS PAYABLE		350,438.43
This amount consists of the following:		
Unpaid Warrants Operating Fund	$123,818.04	
Unpaid Warrants Reconstruction and Replacement Fund	947.24	
Invoices Operating Fund not vouched by Controller	45,102.00	
Invoices Reconstruction and Replacement Fund not vouched by Controller	130.43	
Contract payments withheld Operating Fund	4,356.16	
Contract payments withheld Reconstruction and Replacement Fund	1,871.47	
Contract, P.O., S.O., and O.W. Liability (Contra)	174,213.09	
Items contracted for but for which no materials have been delivered nor services rendered.		
Total	$350,438.43	
INTERFUND ACCOUNTS PAYABLE		$59,848.08
This item represents accounts payable to other city departments as of June 30, 1941. See Exhibit "F."		
INTRAFUND ACCOUNTS PAYABLE (CONTRA)		87,773.91
Amount due between funds of the Municipal Railway. See Exhibit "E."		
ACCIDENT AND OTHER RESERVES		95,969.29
Accident Reserve		
The following is an analysis of this account for the current fiscal year:		
Balance June 30, 1940	$60,230.53	
Addition to reserve during year, 3% of gross revenue	123,105.71	
Addition to reserve account of audit adjustment	30,000.00	
Total	$213,336.24	
Less claims paid, legal and other expense	121,984.31	
Balance June 30, 1941	$91,351.93	

Reserve for Obsolescence in Inventory	4,607.36	
This is the reserve for slow-moving and obsolete materials set up as a result of audit adjustment.		
Miscellaneous	10.00	
Total	$95,969.29	
SURPLUS JUNE 30, 1941		4,398,551.47
Surplus as shown in Exhibit "A" is composed of the following items:		
Contributed Surplus June 30, 1940	$1,568,261.80	
From Operations to June 30, 1940	2,714,652.52	
Surplus June 30, 1940	$4,282,914.32	
Deduct surplus adjustments during the year applicable to prior years	50,223.25	
Adjusted Surplus June 30, 1940	$4,232,691.07	
From operations during fiscal year 1940-1941	165,860.40	
Contributed during fiscal year	None	
Total Surplus June 30, 1941	$4,398,551.47	
COMPARISON CHARGES—TAXES AND OTHER ITEMS		$4,245,983.00

See Income Statement Exhibit "B."

The Municipal Railway being a municipally owned utility is not required to pay taxes other than use or sales taxes to the City and County of San Francisco or to the State of California. For comparative purposes, taxes and other items have been recorded as follows:

Taxes	
State of California	$3,102,272.29
City & County of San Francisco Franchise	536,566.78
City & County of San Francisco Car License	35,988.75
City & County of San Francisco Local	548,310.88
Federal Income Tax	13,270.61
	$4,236,409.31
Services Furnished	
Water furnished without charge by San Francisco Water Department	9,573.69
Total	$4,245,983.00

EXHIBIT "A"

BALANCE SHEET—JUNE 30, 1941

ASSETS

PROPERTIES	
(This is what it cost to build the Municipal Railway; of the total $10,780,556.15 has been spent for completed work and $92,943.97 on work not yet completed.)	$10,873,500.12
The property has been reduced in value by the wearing out of equipment and tracks to the estimated amount of	6,558,902.07
	$4,314,598.05
CASH	
(We have cash deposited with the treasurer of the City and County of San Francisco totaling $1,314,116.44; of this $764,797.79 is to pay wages and salaries and for purchasing materials and supplies to operate the railway; $3,800.00 is reserved to pay back borrowed money now due but which the bondholders have not yet presented for payment; $10,167.50 is kept to pay interest on borrowed money which is due but which has not been presented to us by the bondholders for payment; $310,532.17 is held to replace equipment, tracks, paving, and other properties of the railway as they wear out; $218,318.98 is held in a Surplus Fund to be expended in accordance with provisions of the Charter—Section 127; $6,500.00 is available to the manager of the railway to pay small items arising from time to time in the operation of the railway. The sums are replaced in this revolving fund by the treasurer upon approval of the Public Utilities Commission and the controller.)	1,314,116.44
MISCELLANEOUS ACCOUNTS RECEIVABLE	
(This is owed the railway by other persons for work it has done for them. Of the total amount of $15,571.35 there has been set aside a reserve for bad debts of $5,230.54, leaving a balance of $10,340.81 regarded as collectible.)	10,340.81
INTER-FUND ACCOUNTS RECEIVABLE	
(This is owed the railway by other city departments for interest on daily balances and cash advanced for the betterment of the railway.)	56,277.43
INTRA-FUND ACCOUNTS—SCHEDULE ANNEXED	
(This has been expended or advanced for work on the railway but has not been collected from the railway fund responsible.)	87,773.91
DEFERRED CHARGES	
(This is the amount expended for materials and supplies on hand but not yet used, for cash or credit advanced for work in progress, and for contract and purchase order commitments.)	428,442.04
Properties and Cash Required to Operate the Railway	$6,211,548.68

LIABILITIES

BONDED DEBT	
(What the Municipal Railway has borrowed in bonds not yet due but which are being repaid at the rate of $100,000.00 per year; $3,800.00 due but not presented for payment.)	$1,203,800.00
BOND INTEREST PAYABLE	
Matured Coupons Unpaid	
(This is the money due bondholders for interest who have not yet presented their bond coupons for payment.)	10,167.50
Accrued—Not Due	
(The monthly amount of interest on borrowed money not due until December 1, 1941, which is recorded on the books each month.)	5,000.00
ACCOUNTS PAYABLE	
(This is the money the railway owes for wages, materials, etc., purchased but not yet paid and for contract and purchase order commitments.)	350,438.43
INTER-FUND ACCOUNTS—SCHEDULE ANNEXED	
(This is due other departments by the railway for services performed but not yet paid for.)	59,848.08
INTRA-FUND ACCOUNTS (CONTRA)	
(This is due from one fund of the railway to another for work performed and is balanced by the same sum in assets.)	87,773.91
ACCIDENTS AND OTHER RESERVES	
(This is a reserve to meet obligations now existing on account of claims for injuries and damages and for obsolete materials.)	95,969.29
SURPLUS—JUNE 30, 1941	
(This is the ownership of the people of San Francisco in the Municipal Railway. It is understood that most of this is invested in the system and is not in cash.)	4,398,551.47
Total	$6,211,548.68

EXHIBIT "B"

COMPARATIVE INCOME STATEMENT FOR JUNE, 1941, AND TWELVE MONTHS OF FISCAL YEAR 1940-1941

	Month of June				Twelve Months to June 30				Cumulative from December 28, 1912, to June 30, 1941	
	1941	%	1940	%	1941	%	1940	%		%
REVENUE										
Passenger Revenue	$328.915.25	100.00	$329,534.83	100.00	$4,057,697.88	100.00	$4,135,902.62	100.00	$83,103,035.92	100.00
Advertising Revenue	2,275.00		2,127.55		27,033.53		25,530.63		446,148.05	
Miscellaneous	2,117.39		3,847.35		18,792.34		20,958.36		91,541.65	
Total Revenue	$333,307.64		$335,509.73		$4,103,523.75		$4,182,391.61		$83,640,725.62	
OPERATING EXPENSES										
I. Way and Structures	$15,911.82	4.84	$14,318.51	4.35	$189,465.57	4.67	$179,158.04	4.33	$3,404,490.95	4.10
II. Equipment	23,737.78	7.22	20,783.84	6.31	255,296.74	6.29	227,222.22	5.49	5,051,729.71	6.08
III. Power	42,321.75	12.87	46,105.62	13.99	530,876.81	13.08	550,533.44	13.31	11,998,915.25	14.44
IV. Conducting Transportation	168,341.82	51.18	169,908.87	51.56	2,055,234.49	50.65	2,042,104.87	49.37	42,205,362.38	50.78
VI. General and Miscellaneous*	32,015.92	9.73	26,108.68	7.92	343,431.44	8.47	303,036.91	7.33	4.771,769.61	5.74
Total Operating Expense**	$282,329.09	85.84	$277,225.52	84.13	$3,374,305.05	83.16	$3,302,055.48	79.83	$67,432,267.90	81.14
PROFIT FROM OPERATIONS	$50,978.55		$58,284.21		$729,218.70		$880,336.13		$16,208,457.72	
DEDUCT PROVISION FOR										
Accidents	$9,999.23	3.04	$10,065.29	3.05	$123,105.71	3.03	$125,471.75	3.03	$2,197,540.25	2.64
Depreciation	32,169.04	9.78	31,530.83	9.57	386,028.57	9.52	378,369.91	9.15	7,735,689.42	9.31
Total Deductions	$42,168.27	12.82	$41,596.12	12.62	$509,134.28	12.55	$503,841.66	12.18	$9,933,229.67	11.95
INCOME FROM OPERATIONS	$8,810.28		$16,688.09		$220,084.42		$376,494.47		$6,275,228.05	

NON-OPERATING INCOME										
Income from Securities Owned	.....		.....		.....		.....		$597,037.91	
Interest on Bank Balances	$654.10		$886.11		$2,854.53		$3,675.82		76,224.72	
Subsidy from Harbor Commission	.....		.....		.....		.....		70,229.71	
Other Income (P. & L.)	2,838.24		.....		8,107.78		11,894.13		322,172.72	
Total Non-Operating Income	$3,492.34		$886.11		$10,962.31		$15,569.95		$1,065,665.06	
GROSS INCOME	$12,302.62		$17,574.20		$231,046.73		$392,064.42		$7,340,893.11	
DEDUCTIONS FROM GROSS INCOME										
Interest on Funded Debt	$5,000.00	1.52	$5,416.66	1.64	$62,083.34	1.53	$67,083.33	1.62	$4,356,934.24	5.24
Miscellaneous Debits (P. & L.)***	3,102.99	.94	.....		3,102.99	.08	.....		153,669.20	.19
Total Deductions from Gross Income	$8,102.99	2.46	$5,416.66	1.64	$65,186.33	1.61	$67,083.33	1.62	$4,510,603.44	5.43
NET INCOME	$4,199.63	1.28	$12,157.54	3.69	$165,860.40	4.09	$324,981.09	7.86	$2,830,289.67	3.41

	Mo. of June	12 Months to June 30, 1941
*Includes: Sick Leave and Military Leave	$5,027.75	$59,212.18
Prior Service Costs—July to December, 1940	2,199.24	13,195.39
Prior Service Costs—January to June, 1941	2,602.32	15,042.26
	$9,829.31	$87,449.83
**Includes: Increase in Railway's Proportion of P. U. C. Expense	$1,363.91	$15,567.00
Wage Increases of Per Diem Men	2,015.73	24,968.10
Penalty Overtime Bill No. 1189, Ordinance No. 1155	331.88	5,340.72
	$3,711.52	$45,875.82

***Reserve for Bad Debts (Pacific Railways Advertising Co., Bankrupt)

P. & L.	$3,102.99
Surplus	2,127.55
	$5,230.54

COMPARISON CHARGES

Month of June, 1941	$10,539.84
Twelve Months to June 30, 1941	129,546.07
December 28, 1912, to June 30, 1941	4,245,983.00

(This is what the railway would pay in taxes if privately owned, but not paid because it is owned by the people.)

EXHIBIT "C"

RECONSTRUCTION AND REPLACEMENT FUND—JUNE 30, 1941

Total paid into and/or owing to fund May 1, 1926, to June 30, 1940		$2,052,135.37	
Expended for replacements May 1, 1926, to June 30, 1940	$1,473,978.01		
Expended and charged to surplus May 1, 1926, to June 30, 1940	15,097.27		
Appropriated to General Fund—Traffic Survey	55,000.00	1,544,075.28	
Unencumbered Balance—June 30, 1940			$508,060.09
Balance due from Municipal Railway Operating Fund July 1, 1940, to June 30, 1941		.....	
Add: Cash Transfers from Operating Fund July 1, 1940, to June 30, 1941		$135,000.00	
Total paid into and/or owing to Fund July 1, 1940, to June 30, 1941		$135,000.00	
Less: Charges for Replacements Paid out of Operating Fund July 1, 1940, to June 30, 1941	$5,603.50		
Charges for Replacements paid out of Reconstruction and Replacement Fund July 1, 1940, to June 30, 1941	256,329.07	261,932.57	
		$126,932.57	
Add: Accounts Receivable—General Fund—Mayor—Traffic Survey		55,000.00	
Net Increase in Fund July 1, 1940, to June 30, 1941			*71,932.57*
Unencumbered Balance at June 30, 1941			$436,127.52
The Unencumbered Balance consists of:			
Cash		$310,532.17	
Due from General Fund—Mayor—Traffic Survey		55,000.00	
Due from Operative Fund		82,170.41	
Due to Operating Fund—Replacement Job Expenditures applicable to Fiscal Year 1940-1941		*5,603.50*	
Warrants Outstanding		*947.24*	
Accounts Payable—General Creditors		*130.43*	
Contract Payments—Withheld		*1,871.47*	
Due County Roads Fund		*2,857.14*	
Due Public Utilities Commission		*13.92*	
Due D. P. W.—Bureau of Engineering		*151.36*	
			$436,127.52

Italic figures denote loss and deficiency.

EXHIBIT "C-1"

ACCIDENT RESERVE—JUNE 30, 1941

Total paid into and/or credited to Reserve—May 1, 1926, to June 30, 1940		$1,502,470.79	
Expended for Injuries and Damages—May 1, 1926, to June 30, 1940		1,412,240.26	
Unencumbered Balance—June 30, 1940			$90,230.53
Credited to Reserve—July 1, 1940, to June 30, 1941	$123,105.71		
Less: Charges for Injuries and Damages paid out of Operating Fund—July 1, 1940, to June 30, 1941	121,984.31		1,121.40
Unencumbered Balance at June 30, 1941			$91,351.93

EXHIBIT "D"

COMPARISON OF BUDGET WITH ACTUAL RECEIPTS AND EXPENDITURES

Fiscal Year Ended June 30, 1941

	Budget Plus Supplemental Appropriations	Actual	Increase or *Decrease*
RECEIPTS			
Operating Revenue and Other Income	$4,071.600	$4,114.486	$42,886
EXPENDITURES			
Ways and Structures	$199,600	$190,410	*$9,190*
Equipment	264,455	256.787	*7,668*
Power	537,200	530.877	*6,323*
Conducting Transportation	2,074,671	2,055,236	*19,435*
General and Miscellaneous*	335,678	335,688	10
Total Direct Operating**	$3,411,604	$3,368,998	*$42,606*
Injuries and Damages	125,840	121,984	*3,856*
Employees' Compensation	9.400	9,254	*146*
Reconstruction and Replacement Fund	135,000	135,000	.....
Total Operating Expenses and Reserves	$3,681,844	$3,635,236	*$46,608*
Equipment	7,050	640	*2,063 (F)* *4,347*
Bond Interest	62,500	62,500	.....
Bond Redemption	100,000	100.000	.....
Surplus Fund—Charter Section 127	218,319	.....	*218,319 (F)*
Total Budgeted Expenditures and Accruals Fiscal Year 1940-1941	$4,069,713	$3,798,376	*$271,337*
Budgeted in Previous Fiscal Years:			
Additions and Betterments	209,798	44,481	*165,317 (F)*
Equipment	291,985	190.697	*101,288 (F)*
Rapid Transit Investigation	66,700	.....	*55,000 (F)* *11,700*
Total Expenditures and Accruals	$4,638,196	$4,033,554	*$604,642*
Less Forwarded (*F*) to 1941-1942	*541,987*	.....	*541,987*
Total Expenditures and Accruals	$4,096,209	$4,033,554	*$62,655*
NET SAVINGS ON BUDGET ESTIMATE			$105.541

	Month of June	12 Months to June 30, 1941
*Includes: Sick Leave and Military Leave	$5,027.75	$59,212.18
Prior Service Costs—July to December, 1940	2,199.24	13,195.39
Prior Service Costs—January to June, 1941	2,602.32	15,042.26
	$9,829.31	$87,449.83
**Includes: Increase in Railway's Proportion of Public Utilities Commission Expense	$1,363.91	$15,567.00
Wage Increases of Per Diem Men	2,015.73	24,968.10
Penalty Overtime Bill No. 1189, Ordinance No. 1155	331.88	5,340.72
	$3,711.52	$45,875.82

Italic figures denote loss and deficiency.

EXHIBIT "E"

INTRA-FUND ACCOUNTS

JUNE 30, 1941

Due Reconstruction and Replacement Fund from Operating Fund from loan to purchase rails, etc.	$82,170.41
Due Operating Fund from Reconstruction and Replacement Fund for labor and material used on replacement jobs during Fiscal Year 1940-1941	5,603.50
Total per Balance Sheet	$87,773.91

EXHIBIT "F"

INTER-FUND ACCOUNTS PAYABLE

JUNE 30, 1941

GENERAL CITY AND COUNTY				
GENERAL FUND				
POWER BILLS				
Power Bills for June	$39,188.66			
PURCHASING DEPARTMENT				
Scavenger Services, May and June	66.04			
DEPARTMENT OF PUBLIC WORKS				
Bureau of Building Repair, Miscellaneous Services and Electrical Work	370.64			
Bureau of Engineering—Miscellaneous Services, Etc.	257.84			
Total General Fund		$39,883.18		
EMPLOYEES' RETIREMENT SYSTEM				
Hospital Services—April, May, June	$493.17			
Pension Matching—June	8,275.65			
Military Leave Matching—June	42.63			
Compensation and Medical—June	1,019.46			
Prior Service—June	2,602.32			
Total Employees' Retirement System		12,433.23		
COUNTY ROADS FUND				
DEPARTMENT OF PUBLIC WORKS				
Bureau of Street Repair, Paving Maintenance and Replacement		5,468.83		
Total General City and County			$57,785.24	
PUBLIC SERVICE ENTERPRISES				
PUBLIC UTILITIES COMMISSION				
San Francisco Water Department—Auto Repairs, Insurance, and Blueprinting	$909.59			
General Office—Bid Advertising	13.92			
Hetch Hetchy Water Supply—Miscellaneous Services, Hoisting Engineer	1,139.33		2,062.84	
Total as per Balance Sheet				$59,848.08

SCHEDULE 1

SCHEDULE OF ROAD AND EQUIPMENT AS OF JUNE 30, 1941

Acct. No.		Balance June 30, 1940	Additions Fiscal Year 1940-1941: Reconstruction and Replacement Fund	Additions Fiscal Year 1940-1941: Municipal Railway Fund	Additions Fiscal Year 1940-1941: Total	Retirements During Fiscal Year 1940-1941	Net Additions Fiscal Year 1940-1941	Balance June 30, 1941
	WAYS AND STRUCTURES							
502	Right of Way	$169,839.07	.....	.....	.....	.....	.....	$169,839.07
503	Other Land Used in Electric Railway Operations	308,277.72	.....	.....	.....	.....	.....	308,277.72
504	Grading	524,178.48	$47,300.44	.....	$47,300.44	$36,959.00	$10,341.44	534,519.92
505	Ballant	363,251.90	11,672.19	.....	11,672.19	14,400.47	*2,728.28*	360,523.62
506	Ties	198,248.32	7,026.14	.....	7,026.14	6,430.00	596.14	198,844.46
507	Rails, Rail Fastening, and Joints	970,944.55	51,076.96	.....	51,076.96	35,575.62	15,501.34	986,445.89
508	Special Work	366,641.98	26,490.68	.....	26,490.68	22,687.03	3,803.65	370,445.63
510	Track and Roadway Labor	882,816.93	85,228.04	$133.96	85,362.00	34,556.38	50,805.62	933,622.55
511	Paving	1,236,903.18	46,092.05	.....	46,092.05	61,245.19	*15,153.14*	1,221,750.04
512	Roadway, Machinery, and Tools	24,872.60	.....	.....	.....	.....	.....	24,872.60
513	Tunnels and Subways	14,987.49	.....	.....	.....	.....	.....	14,987.49
515	Bridges, Trestles, and Culverts	4,689.04	.....	.....	.....	.....	.....	4,689.04
516	Crossings, Fences, and Signs	46,075.71	.....	.....	.....	.....	.....	46,075.71
517	Signals and Interlocking Apparatus	20,160.19	.....	.....	.....	.....	.....	20,160.19
518	Telephone and Telegraph Lines	179.07	.....	.....	.....	.....	.....	179.07
519	Poles and Fixtures	278,060.67	.....	.....	.....	187.36	*187.36*	277,873.31
520	Underground Conduits	157,032.80	.....	.....	.....	.....	.....	157,032.80
521	Distribution System	823,738.26	6,992.07	3,253.92	10,245.99	8,747.52	1,498.47	825,236.73
523	Shops and Car Houses	987,490.29	.....	.....	.....	.....	.....	987,490.29
524	Stations, Miscellaneous Building, and Structures	47,105.13	.....	.....	.....	.....	.....	47,105.13
	Total Ways and Structures	$7,425,493.38	$281,878.57	$3,387.88	$285,266.45	$220,788.57	$64,477.88	$7,489,971.26
	EQUIPMENT							
530-A	Passenger and Combinations Cars, Electric	$1,775,168.85	$2,995.61	$118,792.32	$121,787.93	.....	$121,787.93	$1,896,956.78
530-B	Passenger and Combination Cars, Buses	317,904.42	19,938.52	79,198.37	99,136.89	$19,448.74	79,688.15	397,592.57
532-A	Service Equipment, Electric	11,071.11	.....	.....	.....	.....	.....	11,071.11
532-B	Service Equipment, Automotive	35,316.21	5,578.48	.....	5,578.48	6,126.65	*548.17*	34,768.04
533	Electric Equipment of Cars	866,541.51	.....	.....	.....	.....	.....	866,541.51
536	Shop Equipment	44,295.69	.....	113.96	113.96	750.00	*636.04*	43,659.65
537	Furniture	39,253.13	.....	821.81	821.81	79.71	742.10	39,995.23
	Total Equipment	$3,089,550.92	$28,512.61	$198,926.46	$227,439.07	$26,405.10	$201,033.97	$3,290,584.89
	Total Road and Equipment	$10,515,044.30	*$310,391.18	†$202,314.34	$512,705.52	$247,193.67	$265,511.85	$10,780,556.15

*Includes Turn-In Value in Amount of $1,465.00
†Includes Turn-In Value in Amount of $22.50

SCHEDULE II

ANALYSIS OF RESERVE FOR DEPRECIATION AND RATES

APPLICABLE TO FISCAL YEAR 1940-1941

Acct. No.	Account	Cost at June 30, 1940	% Rate of Depreciation for 1940-1941	Amount of Depreciation for 1940-1941
502	Right of Way	$169,839.07	....	.....
503	Other Land Used in Municipal Railway Operations	308,277.72	....	.....
504	Grading	524,178.48	1.920	$10,064.23
505	Ballast	363,251.90	2.500	9,081.30
506	Ties	198,248.32	3.850	7,632.56
507	Rails, Rail Fastenings and Joints	970,944.55	3.580	34,759.81
508	Special Work	366,641.98	5.440	19,945.32
510	Track and Roadway Labor	882,816.93	4.170	36,813.47
511	Paving	1,236,903.18	4.000	49,476.13
512	Roadway, Machinery and Tools	24,872.60	4.793	1,192.08
513	Tunnels and Subways	14,987.49	3.529	528.97
515	Bridges, Trestles and Culverts	4,689.04	2.500	117.23
516	Crossings, Fences and Signs	46,075.71	2.035	937.89
517	Signals and Interlocking Apparatus	20,160.19	4.492	905.70
518	Telephone and Telegraph Lines	179.07	6.667	11.94
519	Poles and Fixtures	278,060.67	2.369	6,587.26
520	Underground Conduits	157,032.80	1.782	2,798.04
521	Distribution System	823,738.26	3.400	28,007.10
423	Shops and Carhouses	987,490.29	2.093	20,668.24
524	Stations, Miscellaneous Buildings and Structures	47,105.13	2.292	1,079.59
530-A	Passenger and Combination Cars, Electric	1,775,168.85	3.903	69,284.66
530-B	Passenger and Combination Cars, Buses	317,904.42	13.595	43,219.20
532-A	Service Equipment, Electric	11,071.11	2.956	327.22
532-B	Service Equipment, Automotive	35,316.21	9.849	3,478.30
533	Electric Equipment of Cars	866,541.51	3.969	34,397.11
536	Shop Equipment	44,295.69	3.694	1,636.30
537	Furniture	39,253.13	5.373	2,109.18
	Totals	$10,515,044.30	3.662	$385,058.83
	Plus 1939-1940 Adjustments			*969.74
				$386,028.57

*Represents Losses on Retirements in 1939-1940.

SCHEDULE II—Continued

	Total Provision for Depreciation	Less Charges for Assets Retired	Balance
Fiscal Years Ended 1913 to 1940	$6,643,933.28	.....	.....
Add: Charges to Reserve on Account of Assets Retired June 1921 to June 1928	115,472.34	.....	.....
Adjustment per Appraisal of Properties as of June 30, 1938	590,255.23	.....	.....
Per Report June 30, 1940	$7,349,660.85	$939,796.28	$6,409,864.57
Deduct: Audit Adjustment of Charges to Reserve		*4,425.01*	4,425.01
Adjusted Balances as of June 30, 1940	$7,349,660.85	$935,371.27	$6,414,289.58
Year Ended June 30, 1941	386,028.57	241,416.08	144,612.49
	$7,735,689.42	$1,176,787.35	$6,558,902.07
	(Exhibit "B")		(Exhibit "A")

FIELD OPERATING STATEMENT
FISCAL YEAR ENDED JUNE 30, 1941

Line	Total Revenue	Operating Expense	Depreciation	Accident Reserve	Bond Interest	Non-Operating *Income* Expense	Total Net Deductions	Net Income	Bond Redemption	Surplus or *Deficit*
B	$538,374.86	$378,564.78	$43,221.73	$13,205.49	$5,973.31	*$997.39*	$439,967.92	$98,406.94	$12,634.17	$85,772.77
C	398,991.36	316,908.69	36,180.12	11,054.69	4,999.91	*833.52*	368,309.89	30,681.47	10,575.85	20,105.62
D	249,750.81	193,232.26	22,065.57	6,738.81	3,048.92	*511.66*	224,573.90	25,176.91	6,449.99	18,726.92
E	131,659.52	163,969.83	18,712.96	5,723.09	2,587.06	*439.30*	190,553.64	*58,894.12*	5,470.01	*64,364.13*
F	381,510.63	230,103.32	26,296.23	8,025.26	3,631.49	*597.48*	267,458.82	114,051.81	7,686.67	106,365.14
H	335,823.25	311,293.23	35,564.35	10,857.82	4,912.66	*820.80*	361,807.26	*25,984.01*	10,395.81	*36,379.82*
J	359,499.76	267,194.99	30,524.04	9,322.55	4,217.01	*702.37*	310,556.22	48,943.54	8,922.50	40,021.04
K	401,081.02	359,558.99	41,075.05	12,543.59	5,674.40	*938.81*	417,913.22	*16,832.20*	12,006.64	*28,838.84*
L	433,304.50	383,832.38	43,848.88	13,390.32	6,058.37	*993.92*	446,136.03	*12,831.53*	12,817.51	*25,649.04*
N	526,703.06	390,459.41	44,612.93	13,622.50	6,162.03	*1,024.07*	453,832.80	72,870.26	13,040.85	59,829.41
Total Cars	$3,756,698.77	$2,995,117.88	$342,101.86	$104,484.12	$47,265.16	*$7,859.32*	$3,481,109.70	$275,589.07	$100,000.00	$175,589.07
BUS ROUTES										
No. 1— Park-Monterey	$66,581.03	$80,175.05	$10,279.94	$3,925.13	$3,500.68	.....	$97,880.80	*$31,299.77*	.....	*$31,299.77*
No. 2— Irving-Noriega	2,915.12	5,256.25	582.39	272.28	158.54	.....	6,269.46	*3,354.34*	.....	*3,354.34*
No. 3— Alemany Blvd.	6,832.73	10,757.34	1,191.88	557.31	324.49	.....	12,831.02	*5,998.29*	.....	*5,998.29*
No. 4— Embarcadero	43,896.17	33,495.69	.....	1,624.38	.....	.....	35,120.07	8,776.10	.....	8,776.10
No. 5— Marina	9,967.63	15,372.44	1,973.42	752.12	674.62	.....	18,772.60	*8,804.97*	.....	*8,804.97*
No. 6— Eureka-Diamond	64,108.73	52,537.56	6,743.86	2,570.44	2,304.98	.....	64,156.84	*48.11*	.....	*48.11*
No. 7— Miraloma	6,168.33	16,568.71	2,127.16	810.79	727.21	.....	20,233.87	*14,065.54*	.....	*14,065.54*
No. 8— Sunset-Parkside	5,421.75	12,613.85	1,698.49	603.81	616.71	.....	15,532.86	*10,111.11*	.....	*10,111.11*
No. 9— Bayshore	11,767.62	20,238.89	2,597.88	990.30	887.92	.....	24,714.99	*12,947.37*	.....	*12,947.37*
No. 10— Sunset-Ocean View	20,384.59	29,490.57	3,634.19	1,467.86	1,175.90	.....	35,768.52	*15,383.93*	.....	*15,383.93*
No. 11— Telegraph Hill	4,283.42	15,857.88	2,035.64	775.74	695.84	.....	19,365.10	*15,081.68*	.....	*15,081.68*
No. 12— Howard Street	102,089.12	82,390.37	10,576.84	4,040.41	3,616.55	.....	100,624.17	1,464.95	.....	1,464.95
No. 14— Roosevelt Way	2,408.74	4,432.57	485.02	231.02	134.74	.....	5,283.35	*2,874.61*	.....	*2,874.61*
Total Buses	$346,824.98	$379,187.17	$43,926.71	$18,621.59	$14,818.18	.....	$456,553.65	*$109,728.67*	.....	*$109,728.67*
Total	$4,103,523.75	$3,374,305.05	$386,028.57	$123,105.71	$62,083.34	*$7,859.32*	$3,937,663.35	$165,860.40	$100,000.00	$65,860.40

Italic figures denote loss and deficiency.

SUMMARY OF INCOME AND OUTLAY

DECEMBER 28, 1912 TO JUNE 30, 1941

INCOME

Passenger and Other Revenue	$83,640,725.62		
Subsidy from Harbor Commission	70,229.71		
Contributed	1,568,261.80		
Interest on Bonds and Daily Balances	673,262.63		
Miscellaneous Credits—Profit and Loss	322,172.72		
Cash Received from Sale of Original Bonds Issued	5,481,000.00		
Total Income and Credits		$91,755,652.48	

OUTLAY

Operating Expenses	$67,432,267.90		
Bond Interest Charges	4,356,934.24		
Injuries and Damages	2,106,188.32		
Miscellaneous Debits—Profit and Loss	153,669.20		
Total Expenses		74,049,059.66	
Excess of Income Over Expenses		17,706,592.82	
Bonds Redeemed		4,281,000.00	
Balance After Expenses and Bond Redemption		$13,425,592.82	
Expended for Construction Extensions, Betterments, Replacements and Renewals and Road and Equipment Retired		12,089,456.70	
Balance, Net Cash, Receivables, Stores, Etc., on Hand See Below			$1,336,136.12

SOURCES OF FUNDS

From Bond Sales	$5,481,000.00
From Reconstruction and Replacement Fund	1,735,910.58
From Earnings and Contributions	5,107,352.03
	$12,324,262.61
Deduct Retirements	1,411,593.26
	$10,912,669.35
Add Portion of Retirements Charged to Reserve	1,176,787.35
	$12,089,456.70

CASH

Cash, Revolving Fund, Net	$6,500.00	
*Cash, Operating Fund, Net	640,979.75	
†Cash, Reconstruction and Replacement Fund, Net	309,584.93	
Cash, Bond Redemption Fund, Net		
Cash, Bond Interest Fund, Net		
Cash, Surplus Fund	218,318.98	
Total Net Cash		$1,175,383.66

(Continued)

SUMMARY OF INCOME AND OUTLAY—Continued

ACCOUNTS RECEIVABLE			
Due from City and County of San Francisco	56,277.43		
Due from Harbor Commission			
Miscellaneous Accounts Receivable, Less Reserves	10,340.81		
Total Accounts Receivable		66,618.24	
STORES			
At Car Barn	72,935.75		
At Storage Yard	141,706.45		
Contributed Stores	336.69		
Total Stores		214,978.89	
DEFERRED CHARGES			
Prepaid Expenses and Unadjusted Debits		80.83	
Total Cash, Receivables, Stores, Etc.		$1,457,061.62	
LIABILITIES			
Accounts Payable, Contract Payments, Inter-Fund, Etc.	111,308.14		
Accrued Interest Not Due	5,000.00		
Reserve for Obsolescence in Inventory	4,607.36		
Unadjusted Credits	10.00		
Total Liabilities		120,925.50	
Net Free Assets			$1,336,136.12

*Due to Reconstruction and Replacement Fund from Operating Fund for Cash Transferred for Purchase of Stores	$82,170.41
†Due to Operating Fund from Reconstruction and Replacement Fund for Labor and Material on Reconstruction and Replacement Fund Replacement Jobs	5,603.50

STATEMENT OF BUS LINE OPERATIONS

July 1, 1940 to June 30, 1941

PASSENGER REVENUE		
Route No. 1—Park-Monterey	$61,356.90	
Route No. 2—Irving-Noriega	2,806.15	
Route No. 3—Alemany Boulevard	6,525.95	
Route No. 4—Embarcadero	43,478.30	
Route No. 5—Marina	9,614.70	
Route No. 6—Eureka-Diamond	61,603.35	
Route No. 7—Miraloma	5,616.25	
Route No. 8—Sunset-Parkside	4,952.05	
Route No. 9—Bayshore	11,033.05	
Route No. 10—Sunset-Ocean View	19,360.15	
Route No. 11—Telegraph Hill	4,112.95	
Route No. 12—Howard Street	100,116.90	
Route No. 14—Roosevelt Way	2,342.30	
Adjustment of Shorts and Overs—July 1, 1940, to June 30, 1941	96.90	
Total Passenger Revenue		$333,015.90
MISCELLANEOUS REVENUE		
Advertising	$2,108.63	
Special Buses	101.65	
Total Miscellaneous Revenue		2,210.28

REVENUE CREDITS

4,366	Special Tickets at 2½c	$109.15		
17,882	Special Tickets at 5c	894.10		
423,664	School Tickets at 2½c	10,591.60		
79	Government Tickets at 5c	3.95		
	Total Revenue Credits			11,598.80
	Total Passenger, Miscellaneous Revenue and Credits			$346,824.98

OPERATING EXPENSES

GROUP II—Equipment

Acct. No.				
39-A	Bus Engines, Labor and Material	$21,331.64		
39-B	Painting Buses	574.45		
39-C	Chassis, Labor and Material	7,301.04		
39-D	Tires, Including Repairs	16,930.33		
39 E	Bus Body Repairs	6,120.49		
39-F	Repairs to Garage Equipment	273.59		
39-G	Transmission, Labor and Material	1,014.89		
39-H	Brake Work, Labor and Material	3,526.54		
	Total—Group II		$57,072.97	

GROUP IV—Conducting Transportation

69-A	Station Expense	$1,047.10		
78-A	Gasoline, Buses	62,527.04		
78-B	Oils and Lubricants, Buses	3,660.29		
78-C	Conductors-Chauffeurs, Buses	155,455.39		
78-D	Greasing, Servicing, and Miscellaneous Expense	15,577.64		
78-E	Cleaning and Washing Buses	7,187.01		
	Total—Group IV		245,454.47	

GROUP VI—General and Miscellaneous

88-A	Pension Costs, Buses	$12,293.42		
88-C	Sick Leave—Bus Employees	1,526.50		
88-D	Sick Leave—Medical Fees	237.35		
*89 A	Administration, Buses	34,404.00		
94	Stationery and Printing	1,989.12		
95	Store Expense—10% of Material Cost	10,469.64		
98	Rent of Equipment—Service Truck 2,190 Hours at 60c	1,314.00		
98-A	Garage, Shop, Office and Equipment Rental	4,400.47		
98-B	Rental of Buses	10,025.23		
	Total—Group VI		76,659.73	
	Total Operating Expense			379,187.17
	Operating Profit or *Loss*			*$32,362.19*

RESERVES AND FIXED CHARGES

Insurance Account 89-B—1,862,159 Miles at 1c	$18,621.59		
Accrued Depreciation, Buses	43,219.20		
Accrued Depreciation, Garage Equipment	366.99		
Accrued Depreciation, Fare Boxes	340.52		
Interest on Investment	14,818.18		
Total Reserves and Fixed Charges			77,366.48
Net Profit or *Loss*			*$109,728.67*
Average Net Profit or *Loss* Per Day			*300.63*

*Allocation:

Superintendence—Plant and Equipment	$10,458.82
Superintendence—Operation of Buses	10,458.82
Administration—General	13,486.36
	$34,404.00

STATEMENT OF BUS LINE OPERATIONS—Continued

Acct. No.		Bus Mileage 1,862,159 Miles Itemized Cost Per Mile	Bus Hours 177,707 Hours Itemized Cost Per Hour
39-A	Bus Engines, Labor and Material	.01146	.12004
39-B	Painting Buses	.00031	.00323
39-C	Chassis, Labor and Material	.00392	.04109
39-D	Bus Tires, Including Repairs	.00909	.09527
39-E	Bus Body Repairs	.00329	.03444
39-F	Repairs to Garage Equipment	.00015	.00154
39-G	Transmission, Labor and Material, Buses	.00054	.00571
39-H	Brake Work, Labor and Material, Buses	.00189	.01985
	Total—Group II—Equipment	.03065	.32117
69-A	Station Expense	.00560	.00589
78-A	Gasoline, Buses	.03358	.35185
78-B	Oils and Lubricants, Buses	.00197	.02060
78-C	Conductors-Chauffeurs, Buses	.08348	.87479
78-D	Greasing, Servicing, and Miscellaneous Expense, Buses	.00836	.08766
78-E	Cleaning and Washing, Buses	.00386	.04044
	Total—Group IV—Conducting Transportation	.13181	1.38123
88-A	Pension Costs, Buses	.00660	.06918
88-C	Sick Leave, Bus Employees	.00082	.00859
88-D	Sick Leave, Medical Fees	.00013	.00134
89-A	Administration, Buses	.01848	.19360
94	Stationery and Printing	.00107	.01119
95	Store Expense	.00562	.05892
98	Rent of Equipment	.00071	.00739
98-A	Garage, Shop, Office and Equipment Rental	.00236	.02476
98-B	Rental of Buses	.00538	.05641
	Total—Group VI—General and Miscellaneous	.04117	.43138
	Total Operating Expense	.20363	2.13378
	Insurance Account No. 89-B	.01000	.10479
	Accrued Depreciation	.02359	.24719
	Interest on Investment	.00796	.08338
	Total Reserves and Fixed Charges	.04155	.43536
	Total Expense	.24518	2.56914
	Passenger Revenue	.17883	1.87396
	Advertising Revenue	.00113	.01187
	Revenue from Special Buses	.00006	.00057
	Ticket Revenue	.00623	.06527
	Total Revenue	.18625	1.95167
	Net Loss	*.05893*	*.61747*

PASSENGERS CARRIED

5c Fares	6,660,318
2½c School Tickets	423,664
Special Tickets, 5c	4,366
Special Tickets, 2½c	17,882
Special Tickets, Free	3,452
Free Passengers	7,202
Local Transfers	3,847,766
Government Tickets, 5c	79
Total	10,964,729

Charges to Insurance Reserve for Fiscal Year—July 1, 1940, to June 30, 1941:

Proportion Salary Expenses—Claims Department	$5,384.07
Accident Claims Paid	12,878.39
Fire Insurance Premiums, Buses	663.90
Total	$18,926.36

Italic figures denote loss and deficiency.

COMPARATIVE OPERATING RECEIPTS STATEMENT BETWEEN FISCAL YEARS ENDED JUNE 30, 1941, AND JUNE 30, 1940

Fiscal Year Ended June 30, 1941				Fiscal Year Ended June 30, 1940				Comparison			
Line	Receipts	Car Hours	Receipts Per Car Hour	Line	Receipts	Car Hours	Receipts Per Car Hour	Line	Receipts	Car Hours	Receipts Per Car Hour
B	$515,545.10	112,092	$4.60	B	$547,846.20	121,334	$4.52	B	*$32,301.10*	*9,242*	$.08
C	384,345.60	93,846	4.10	C	429,293.80	101,654	4.22	C	*44,948.20*	*7,808*	*.12*
D	244,029.00	57,220	4.26	D	257,980.10	60,741	4.25	D	*13,951.10*	*3,521*	.01
E	127,097.45	48,569	2.62	E	135,080.55	49,396	2.73	E	*7,983.10*	*827*	*.11*
F	365,130.85	68,090	5.36	F	361,867.70	68,540	5.28	F	3,263.15	*450*	.08
H	320,355.55	92,164	3.48	H	318,589.40	93,010	3.43	H	1,766.15	*846*	.05
J	346,863.75	79,115	4.38	J	372,398.05	81.600	4.56	J	*25,534.30*	*2,485*	*.18*
K	383,927.95	106,443	3.61	K	392,638.45	109,720	3.58	K	*8,710.50*	*3,277*	.03
L	416,774.00	113,612	3.67	L	422,931.65	115,570	3.66	L	*6,157.65*	*1,958*	.01
M	.....	.....	....	M	1,016.85	973	1.05	M	*1,016.85*	*973*	*1.05*
N	504,984.20	115,581	4.37	N	513,839.05	117,466	4.37	N	*8,854.85*	*1,885*	...
Total	$3,609,053.45	886,732	$4.07	Total	$3,753,481.80	920,004	$4.08	Total	*$144,428.35*	*33,272*	*$.01*

Above Receipts Are for 5c Fares Only

Total Receipts—Cars	$3,767,661.08
Total Receipts—Cars, per Car Hour	$4.25

Bus Lines

Bus Hours—177,707

Receipts—5c Fares	$332,919.00
Receipts—5c Fares, per Bus Hour	$1.87
Total Receipts—Buses	$346,824.98
Total Receipts—Buses, per Bus Hour	$1.95

Cars and Buses

Car and Bus Hours—1,064,439

Receipts—5c Fares	$3,941,972.45
Receipts—5c Fares, per Car and Bus Hour	$3.70
Total Receipts—Cars and Buses	$4,114,486.06
Total Receipts—Cars and Buses, per Hour	$3.87

Italic figures denote loss and deficiency.

Above Receipts Are for 5c Fares Only

Total Receipts—Cars	$3,984,709.69
Total Receipts—Cars, per Car Hour	$4.33

Bus Lines

Bus Hours—129,716

Receipts—5c Fares	$199,259.90
Receipts—5c Fares, per Bus Hour	$1.54
Total Receipts—Buses	$213,251.87
Total Receipts—Buses, per Bus Hour	$1.64

Cars and Buses

Car and Bus Hours—1,049,720

Receipts—5c Fares	$3,952,741.70
Receipts—5c Fares, per Car and Bus Hour	$3.77
Total Receipts—Cars and Buses	$4,197,961.56
Total Receipts—Cars and Buses, per Hour	$4.00

Above Receipts Are for 5c Fares Only

Total Receipts—Cars	*$217,048.61*
Total Receipts—Cars, per Car Hour	*$0.08*

Bus Lines

Bus Hours—47,991

Receipts—5c Fares	$133,659.10
Receipts—5c Fares, per Bus Hour	$0.33
Total Receipts—Buses	$133,573.11
Total Receipts—Buses, per Bus Hour	$0.31

Cars and Buses

Car and Bus Hours—14,719

Receipts—5c Fares	*$10,769.25*
Receipts—5c Fares, per Car and Bus Hour	*$0.07*
Total Receipts—Cars and Buses	*$83,475.50*
Total Receipts—Cars and Buses, per Hour	*$0.13*

RECAPITULATION OF PASSENGER TRAFFIC

FISCAL YEAR JULY 1, 1940, TO JUNE 30, 1941

Line	5c Fares	Q.M.T.	School	Special Tickets 2½c	Special Tickets 5c	Non-Revenue Transfers Div.	Fillmore	Hyde	Ellis	Ingl.	Total	Local Transfers	Free Passengers	Special Tickets Free	Total Passengers
B	10,075,207	408	638,450	4,760	19,559	10,357	158,339	.....	.....	.....	168,696	2,137,800	38,796	3,789	13,087,465
C	7,500,794	425	355,578	3,999	16,414	7,651	122,749	.....	.....	.....	130,400	1,503,380	31,350	3,177	9,545,517
D	4,745,291	291	82,199	3,080	12,631	.....	552	.....	.....	.....	552	789,995	10,421	2,449	5,646,909
E	2,541,098	3	68,283	1,638	6,760	.....	146,550	99,073	.....	.....	245,623	807,840	8,610	1,307	3,681,162
F	6,971,478	28	482,361	3,427	14,100	.....	.....	.....	38,492	.....	38,492	2,748,590	10,038	2,731	10,271,245
H	6,365,274	10	372,437	6,139	25,164	.....	.....	.....	.....	.....	.....	4,118,291	76,842	4,878	10,969,035
J	6,717,015	42	301,303	4,461	18,331	.....	.....	.....	.....	.....	.....	1,549,567	36,736	3,552	8,631,007
K	7,431,289	31	428,097	4,176	17,173	.....	.....	.....	.....	27,764	27,764	1,865,013	42,530	3,325	9,819,398
L	8,086,140	25	377,228	5,382	22,057	.....	.....	.....	.....	.....	.....	1,816,276	55,200	4,279	10,366,587
N	9,764,325	99	583,068	5,151	21,221	.....	.....	.....	.....	.....	.....	1,775,415	61,430	4,104	12,214,813
Miscellaneous	1,997,971	173	147,328	1,002	4,153	.....	897	.....	6,861	.....	7,758	1,462,297	2,660	802	3,624,144
Bus Route No. 1	1,227,447	2	182,949	729	2,984	.....	.....	.....	.....	.....	.....	1,138,986	1,241	575	2,554,913
Bus Route No. 2	56,154	...	2,796	19	78	.....	.....	.....	.....	.....	.....	64,207	22	14	123,290
Bus Route No. 3	130,603	...	8,697	82	328	.....	.....	.....	.....	.....	.....	114,512	50	64	254,336
Bus Route No. 4	869,617	68	787	816	3,359	.....	.....	.....	.....	.....	.....	.....	1,887	651	877,185
Bus Route No. 5	192,162	...	10,138	27	119	.....	.....	.....	.....	.....	.....	216,584	17	22	419,069
Bus Route No. 6	1,232,580	...	82,142	582	2,399	.....	.....	.....	.....	.....	.....	777,843	261	463	2,096,270
Bus Route No. 7	112,223	...	17,923	20	69	.....	.....	.....	.....	.....	.....	148,039	21	12	278,307
Bus Route No. 8	99,038	1	15,630	25	95	.....	.....	.....	.....	.....	.....	125,706	61	18	240,574
Bus Route No. 9	220,715	...	22,957	167	684	.....	.....	.....	.....	.....	.....	215,063	283	130	459,999
Bus Route No. 10	387,300	2	32,063	174	712	.....	.....	.....	.....	.....	.....	375,077	739	140	796,207
Bus Route No. 11	82,263	...	2,679	33	138	.....	.....	133	.....	.....	133	118,424	20	23	203,713
Bus Route No. 12	2,003,348	6	43,574	1,678	6,861	.....	.....	.....	.....	.....	.....	511,534	2,510	1,328	2,570,839
Bus Route No. 14	46,868	...	1,329	14	56	.....	.....	.....	.....	.....	.....	41,658	90	12	90,027
Total	78,856,200	1,614	4,259,996	47,581	195,445	18,008	429,087	99,206	45,353	27,764	619,418	24,422,097	381,815	37,845	108,822,011

Note: Bus Route No. 1 November 18, 1940—Extended to San Francisco Junior College between 8:42 a. m. and 5:00 p. m. on school days.
Bus Route No. 2 March 23, 1941—Commenced operation.
Bus Route No. 3 March 23, 1941—Commenced operation.
Bus Route No. 3 May 25, 1941—Extended from 30th and Church to 30th and Sanchez Streets.
Bus Route No. 7 June 8, 1941—Extended from Rio Court to Teresita Boulevard and Melrose Street.
Bus Route No. 8 March 23, 1941—Discontinued operation; replaced by extension of Route No. 10 to 19th Avenue and Irving Street.
Bus Route No. 10 March 23, 1941—Extended from St. Francis Circle to 19th and Irving Street, eliminating Route No. 8.
Bus Route No. 12 July 2, 1940—Commenced operation.
Bus Route No. 12 July 7, 1940—Extended from Howard and Beale streets to ferries.
Bus Route No. 14 April 6, 1941—Commenced operation.
Bus Route No. 14 May 19, 1941—Extended from Duboce and Noe streets to Church, Market and 14th streets.

COMPARISON OF CAR HOURS AND CAR MILES
FISCAL YEARS 1940-1941 AND 1939-1940

Line Cars	Car Hours 1940-1941	Car Hours 1939-1940	Car Hours Increase or *Decrease*	Car Miles 1940-1941	Car Miles 1939-1940	Car Miles Increase or *Decrease*
B	112,092	121,334	*9,242*	1,109,008	1,213,969	*104,961*
C	93,846	101,654	*7,808*	905,790	986,720	*80,930*
D	57,220	60,741	*3,521*	474,136	507,864	*33,728*
E	48,569	49,396	*827*	383,178	389,382	*6,204*
F	68,090	68,540	*450*	563,561	569,009	*5,448*
H	92,164	93,010	*846*	795,021	806,816	*11,795*
J	79,115	81,600	*2,485*	687,581	702,160	*14,579*
K	106,443	109,720	*3,277*	1,128,072	1,162,102	*34,030*
L	113,612	115,570	*1,958*	1,212,236	1,226,912	*14,676*
M		973	*973*		11,167	*11,167*
N	115,581	117,466	*1,885*	1,145,296	1,164,418	*19,122*
Total Cars	886,732	920,004	*33,272*	8,403,879	8,740,519	*336,640*
Buses						
No. 1	37,184	40,162	*2,978*	427,995	441,014	*13,019*
No. 2	2,523		2,523	26,877		26,877
No. 3	5,165		5,165	61,809		61,809
No. 4	17,019	17,021	*2*	162,438	162,779	*341*
No. 5	7,121	7,143	*22*	56,104	56,107	*3*
No. 6	24,356	22,023	2,333	230,160	204,504	25,656
No. 7	7,681	7,743	*62*	79,356	77,945	1,411
No. 8	5,771	8,671	*2,900*	50,183	75,521	*25,338*
No. 9	9,385	8,531	854	116,564	101,499	15,065
No. 10	13,816	11,635	2,181	186,587	159,022	27,565
No. 11	7,351	6,787	564	42,835	39,406	3,429
No. 12	38,198		38,198	398,835		398,835
No. 14	2,137		2,137	22,416		22,416
Total Buses	177,707	129,716	47,991	1,862,159	1,317,797	544,362
Total Cars and Buses	1,064,439	1,049,720	14,719	10,266,038	10,058,316	207,722

Italic figures denote loss and deficiency.

STATEMENT OF CAR AND BUS MILEAGE, CAR AND BUS HOURS OPERATED AND TOTAL PASSENGERS CARRIED

PERIOD DECEMBER 28, 1912 TO JUNE 30, 1941

Year	Car and Bus Mileage	Car and Bus Hours	Total Passengers Carried
12/28/12 to 12/31/13	1,300,869	129,050	9,723,177
1/ 1/14 to 12/31/14	3,282,012	362,333	27,933,049
1/ 1/15 to 6/30/15	3,112,910	368,841	24,670,130
7/ 1/15 to 6/30/16	6,358,543	737,214	47,886,784
7/ 1/16 to 6/30/17	5,317,270	580,717	36,234,723
7/ 1/17 to 6/30/18	6,935,090	766,997	62,396,036
7/ 1/18 to 6/30/19	7,212,763	779,746	59,341,253
7/ 1/19 to 6/30/20	7,419,272	795,578	66,169,246
7/ 1/20 to 6/30/21	7,538,737	806,761	69,960,834
7/ 1/21 to 6/30/22	7,677,307	811,292	70,757,908
7/ 1/22 to 6/30/23	8,148,703	853,157	73,633,760
7/ 1/23 to 6/30/24	8,676,611	900,224	77,736,617
7/ 1/24 to 6/30/25	8,897,271	921,280	79,900,645
7/ 1/25 to 6/30/26	9,302,073	961,451	83,390,908
7/ 1/26 to 6/30/27	9,428,522	975,949	83,603,652
7/ 1/27 to 6/30/28	9,657,311	999,243	85,281,171
7/ 1/28 to 6/30/29	9,903,754	1,028,345	85,683,664
7/ 1/29 to 6/30/30	10,186,213	1,054,514	87,673,608
7/ 1/30 to 6/30/31	10,114,999	1,042,925	85,250,762
7/ 1/31 to 6/30/32	9,770,683	995,524	80,123,238
7/ 1/32 to 6/30/33	9,251,492	918,120	71,815,286
7/ 1/33 to 6/30/34	8,875,788	876,820	73,063,608
7/ 1/34 to 6/30/35	8,937,287	883,914	78,849,085
7/ 1/35 to 6/30/36	8,751,421	867,581	79,116,866
7/ 1/36 to 6/30/37	8,763,838	872,873	80,754,084
7/ 1/37 to 6/30/38	9,212,687	919,678	90,290,519
7/ 1/38 to 6/30/39	9,810,068	1,003,126	107,739,849
7/ 1/39 to 6/30/40	10,058,316	1,049,720	111,305,527
7/ 1/40 to 6/30/41	10,266,038	1,064,439	108,822,011
12/28/12 to 6/30/41	234,167,848	24,327,412	2,099,108,000

COMPARATIVE STATEMENT DATA FOR FISCAL YEARS ENDED JUNE 30, 1941, AND JUNE 30, 1940

	Fiscal Year Ended June 30, 1941				Fiscal Year Ended June 30, 1940			
	Total	Ratio to Passenger Revenue	Per Car and Coach Mile	Per Car and Coach Hour	Total	Ratio to Passenger Revenue	Per Car and Coach Mile	Per Car and Coach Hour
Passenger Revenue	4,057,698	100.000	.3953	3.8121	4,135,903	100.000	.4112	3.9400
Operating Expense	3,374,305	83.158	.3287	3.1700	3,302,055	79.839	.3283	3.1457
Interest on Funded Debt	62,083	1.530	.0060	.0583	67,083	1.622	.0067	.0639
Provision for Depreciation	386,029	9.513	.0376	.3627	378,370	9.148	.0376	.3604
Provision for Accidents	123,106	3.034	.0120	.1157	125,472	3.034	.0125	.1195
Net Income	165,860	4.088	.0162	.1558	324,981	7.858	.0323	.3096
Passenger Car and Coach Mileage	10,266,038	.....	.....	.....	10,058,316	.....	.....	.....
Passenger Car and Coach Hours	1,064,439	.....	.....	.....	1,049,720	.....	.....	.....
Platform Expense	1,680,429	41.413	.1637	1.5787	1,685,018	40.741	.1675	1.6052
Number of Electric Passenger Cars Owned	238	.....	.....	.....	238	.....	.....	.....
Number of Electric Work Cars Owned	2	.....	.....	.....	2	.....	.....	.....
Number of Electric Trolley Coaches Owned	9	.....	.....	.....	.....	.....	.....	.....
Number of Motor Coaches Owned	41	.....	.....	.....	31	.....	.....	.....
Number of Auto Cars and Trucks Owned	18	.....	.....	.....	18	.....	.....	.....
Total Number of Electric Cars, Trolley Coaches, Motor Coaches, Auto Cars and Trucks Owned	308	.....	.....	.....	289	.....	.....	.....
Revenue Passengers Carried	83,360,836	.....	8.1200	78.3143	86,078,594	.....	8.5579	82.0015
Free Transfer Passengers Carried	25,041,515	.....	2.4393	23.5255	24,760.097	.....	2.4617	23.5873
Free Passengers (Employees, Police, Etc.)	419,660	.....	.0409	.3943	466,836	.....	.0464	.4447
Total Passengers Carried	108,822,011	.....	10.6002	102.2341	111,305,527	.....	11.0660	106.0335

Note: Above Includes Bus Operation.

COST STATEMENT—ITEMIZED ACCOUNTS

Fiscal Year July 1, 1940, to June 30, 1941

STREET CAR OPERATION ONLY

Acct. No.	Name	Amount	Per Car Mile	Per Car Hour
	I. WAY AND STRUCTURES			
1	Superintendence of Way and Structures	$18,677.75	.00222	.02106
2	Ballast	255.22	.00003	.00029
3	Ties	196.01	.00002	.00022
4	Rails	1,476.93	.00018	.00167
5	Rail Fastenings and Joints	3,923.14	.00047	.00443
6	Special Work	769.59	.00009	.00086
8	Track and Roadway Labor	79,792.02	.00949	.08998
9	Misc. Track and Roadway Expense	4,298.94	.00051	.00485
10	Paving	10,433.53	.00124	.01177
11	Cleaning and Sanding Tracks	32,500.73	.00387	.03665
13	Tunnels and Subways	990.26	.00012	.00112
15	Bridges, Trestles and Culverts	13.00	.00000	.00002
16	Crossings, Fences, Guards and Signs	365.64	.00004	.00041
17	Signal and Interlocking Devices	1,238.31	.00015	.00140
18	Telephone and Telegraph System	114.47	.00002	.00013
20	Poles and Fixtures	1,950.95	.00023	.00220
22	Distribution System	28,482.92	.00339	.03212
23	Miscellaneous Electric Line Expenses	376.83	.00005	.00042
24	Buildings and Structures	5,056.83	.00060	.00570
28	Transportation for Investment Credit	*1,447.50*	*.00017*	*.00163*
	Total Way and Structures	$189,465.57	.02255	.21367
	II. EQUIPMENT			
29	Superintendence of Equipment	$2,352.66	.00028	.00265
30	Passenger and Combination Cars	150,607.17	.01792	.16985
32	Service Equipment	82.76	.00001	.00009
33	Electric Equipment of Cars	38,110.86	.00453	.04298
36	Shop Equipment, Machinery and Tools	1,770.04	.00022	.00200
37	Shop Expenses	2,971.54	.00035	.00335
38	Vehicles and Horses	2,328.74	.00028	.00263
	Total Equipment	$198,223.77	.02359	.22354

Acct. No.	Name	Amount	Per Car Mile	Per Car Hour
	III. POWER			
45	Superintendence of Power	$1,000.00	.00012	.00113
59	Power Purchased	524,899.16	.06246	.59195
59A	Power Purchased for Lighting Car Barns	3,452.09	.00041	.00389
59B	Power Purchased for Lighting Tunnels	1,525.56	.00018	.00172
	Total Power	$530,876.81	.06317	.59869
	IV. CONDUCTING TRANSPORTATION			
63	Superintendence of Transportation	$107,646.85	.01281	.12140
64A	Conductors	784,146.69	.09331	.88432
64B	Motormen	740,826.63	.08815	.83546
66	Miscellaneous Car Service Employees	3,080.30	.00037	.00347
67B	Lubricants and Waste	3,113.73	.00037	.00352
67C	Special Agents and Fare Registers	1,650.26	.00020	.00186
67D	Incandescent Lamps	811.96	.00010	.00092
67E	Miscellaneous Car Service Expenses	2,733.65	.00031	.00308
68	Station Employees	12,150.78	.00145	.01370
69	Station Expenses	1,289.47	.00015	.00145
70	Car House Employees	132,859.78	.01581	.14983
71	Car House Expenses	3,709.24	.00044	.00418
72	Oper. of Signal & Interlocking Appar.	10,153.36	.00121	.01145
73	Operation of Tel. and Tel. System	4,681.97	.00056	.00528
78	Miscellaneous Transportation Expenses	925.35	.00011	.00104
	Total Conducting Transportation	$1,809,780.02	.21535	2.04096
	VI. GENERAL AND MISCELLANEOUS			
83	Salaries and Expenses of Gen. Officers	$7,693.62	.00092	.00868
84	Salaries and Expenses of Gen. Off. Clerks	27,270.42	.00324	.03076
85	General Office Supplies and Expenses	4,021.70	.00048	.00453
86	Law Expenses	68.55	.00001	.00008
88	Pensions and Gratuities	173,231.50	.02062	.19536
89	Miscellaneous General Expenses	18,603.12	.00221	.02096
92D	Comp.—Injuries & Damages, Employees	9,253.59	.00110	.01043
93A	Insurance Premiums	1,722.60	.00020	.00194
94	Stationery and Printing	8,273.58	.00098	.00933
94A	Tickets and Transfers	13,084.04	.00156	.01476
95	Stores Expense	6,242.88	.00074	.00704
96	Garage Expense	2,995.39	.00036	.00339
97	Rent of Tracks and Facilities	9,337.11	.00111	.01053
	Credit Charges to Bus Line Operation	*15,026.39*	*.00179*	*.01694*
	Total General and Miscellaneous	$266,771.71	.03174	.30085

(Continued)

COST STATEMENT—ITEMIZED ACCOUNTS
STREET CAR OPERATION ONLY—Continued

Acct. No.	Name	Amount	Per Car Mile	Per Car Hour
	RECAPITULATION			
I.	Way and Structures	$189,465.57	.02255	.21367
II.	Equipment	198,223.77	.02359	.22354
III.	Power	530,876.81	.06317	.59869
IV.	Conducting Transportation	1,809,780.02	.21535	2.04096
VI.	General and Miscellaneous	266,771.71	.03174	.30085
	Total Recapitulation	$2,995,117.88	.35640	3.37771
	Depreciation Reserve $386,028.57			
	Less Applicable to Buses 43,926.71	342,101.86	.04071	.38580
	*Accident Reserve $123,105.71			
	Less Applicable to Buses 18,621.59	104,484.12	.01243	.11783
	Bond Interest $62,083.34			
	Less Applicable to Buses 14,818.18	47,265.16	.00562	.05330
	Grand Total	$3,488,969.02	.41516	3.93464
	*Actual Payments and Accident Costs	$121,984.31		
	Less Applicable to Buses	18,262.46		
		$103,721.85		
	Car Mileage 8,403,879			
	Car Hours 886,731			

Note: Bus Line Operations Not Included.
Italic figures denote loss and deficiency.

COST STATEMENT—ITEMIZED ACCOUNTS
Fiscal Year July 1, 1940, to June 30, 1941
BUS OPERATIONS ONLY

Acct. No.	Name	Amount	Per Bus Mile	Per Bus Hour
	II. EQUIPMENT			
39A	Bus Engines, Labor and Material	$21,331.64	.01145	.12004
39B	Painting Buses	574.45	.00031	.00323
39C	Chassis, Labor and Material, Buses	7,301.04	.00392	.04109
39D	Bus Tires, including Repairs	16,930.33	.00909	.09527
39E	Bus Body Repairs	6,120.49	.00329	.03444
39F	Repairs to Garage Equipment	273.59	.00015	.00154
39G	Transmission, Labor and Material, Buses	1,014.89	.00055	.00571
39H	Brake Work, Labor and Material, Buses	3,526.54	.00189	.01985
	Total Equipment	$57,072.97	.03065	.32117

Acct. No.	Name	Amount	Per Bus Mile	Per Bus Hour
	IV. CONDUCTING TRANSPORTATION			
69A	Station Expenses, Buses	$1,047.10	.00056	.00589
78A	Gasoline, Buses	62,527.04	.03358	.35186
78B	Oils, Lubricants, Buses	3,660.29	.00197	.02060
78C	Conductors, Chauffeurs, Buses	155,455.39	.08348	.87478
78D	Greasing and Servicing Buses	15,577.64	.00836	.08766
78E	Cleaning and Washing Buses	7,187.01	.00386	.04044
	Total Conducting Transportation	$245,454.47	.13181	1.38123
	V. GENERAL AND MISCELLANEOUS			
88A	Pension Costs, Buses	$12,293.42	.00660	.06918
88C	Sick Leave, Bus Employees	1,526.50	.00082	.00859
88D	Sick Leave, Medical Expenses	237.35	.00013	.00134
*89A	Administration, Buses	34,404.00	.01848	.19360
94	Stationery and Printing	1,989.12	.00107	.01119
95	Store Expense	10,469.64	.00562	.05892
98	Rent of Equipment	1,314.00	.00071	.00739
98A	Garage, Shop, Office and Equip. Rental	4,400.47	.00236	.02476
98B	Rental of Buses	10,025.23	.00538	.05641
	Total General and Miscellaneous	$76,659.73	.04117	.43138
	*Allocation:			
	Superintendence—Plant & Equipment	$10,458.82		
	Superintendence—Operation of Buses	10,458.82		
	Administration—General	13,486.36		
		$34,404.00		
	RECAPITULATION			
II.	Equipment	$57,072.97	.03065	.32117
IV.	Conducting Transportation	245,454.47	.13181	1.38123
VI.	General and Miscellaneous	76,659.73	.04117	.43138
	Total Recapitulation	$379,187.17	.20363	2.13378
	Depreciation Reserve	$43,926.71	.02359	.24719
	†Injuries and Damages	18,621.59	.01000	.10479
	Total Reserves	$62,548.30	.03359	.35198
	Interest on Investment	$14,818.18	.00796	.08338
	Total—Bus Costs	$456,553.65	.24518	2.56914
	†Actual Payments and Accident Costs	$18,262.46		
	Fire Insurance Premium, Buses	663.90		
		$18,926.36		
	Bus Mileage	1,862,159		
	Bus Hours	177,707		

ANNUAL REPORT OF BUREAU OF CLAIMS

Fiscal Year Ended June 30, 1941

1.	Total passengers carried during year		108,822,011
2.	Car miles operated:		
	Cars	8,403,879	
	Buses	1,862,159	10,266,038
3.	Number of passengers to mile		10.60
*4.	Number of accident reports filed		4,344
5.	Number of accidents fatal		7
6.	Number of fatal accidents to passengers		1
7.	Number of accidents, personal injuries to passengers		1,507
8.	Number of claims presented		869
9.	Number of claims adjusted		599
10.	Number of suits instituted		124
11.	Number of suits pending		77
12.	Number of passengers carried per accident report		25,051
13.	Number of passengers carried per personal injury report		72,211
14.	Number of passengers carried per fatal accident to passenger		108,822,011

CLASSIFICATION

1.	Car collisions	41	.0094
2.	Auto and wagon collisions	1,874	.4314
3.	Boarding moving car	392	.0902
4.	Leaving moving car	152	.0350
5.	Miscellaneous	1,885	.4340
		4,344	1.0000
1.	Percentage of accidents to passengers carried		.000039
2.	Total Operating Revenue		$4,103,523.75
§3.	Total amount paid for accident claims, office and miscellaneous expense		$121,984.31
4.	Ratio to operating revenue		.0297

RECAPITULATION

Amounts Paid

1.	Personal injuries	$73,433.97
2.	Property damage	6,705.53
†3.	Salaries and wages	28,165.47
‡4.	Miscellaneous and hospital	13,679.34
	§Total	$121,984.31

*Item No. 4 of the above "Number of accident reports filed" also includes any and all reports of accidents happening near the cars and buses in which the railway was not involved.

†Salaries and wages account includes salary expense of city attorney's office, which amounts to $9,600.00.
‡Miscellaneous and hospital includes $1,000.00 of city attorney's office expense.

COMPARATIVE STATEMENT OF COMPLAINTS AND COMMENDATIONS

Fiscal Years Ended June 30, 1941, and June 30, 1940

	Geary Street Division		17th Street Division	
	Fiscal Year Ended June, 1941	Fiscal Year Ended June, 1940	Fiscal Year Ended June, 1941	Fiscal Year Ended June, 1940
Discourtesy	32	83	37	65
Improper handling of transfers	24	21	3	13
Not allowing passengers sufficient time to board or alight from cars	11	41	16	31
Failure to stop for intending passengers	11	62	12	33
Carrying passengers beyond destination	11	29	6	20
Careless operation of car	13	36	11	27
Miscellaneous	23	73	18	50
Total number of complaints received	125	345	103	239
Commendations received	37	42	34	33

COMPARATIVE STATEMENT OF BAD ORDER CARS TURNED IN

Fiscal Year Ended June 30, 1941

	Geary Street Division	17th Street Division	Total	System Average
Number of cars	367	484	851	
Mileage	3,435,672	4,968,207	8,403,879	
Mileage per Turn-in	9,362	10,265		9,875
Accidents not included in above	141	175	316	

Fiscal Year Ended June 30, 1940

Number of cars	468	540	1,008	
Mileage	3,666,944	5,073,574	8,740,518	
Mileage per Turn-in	7,835	9,396		8,671
Accidents not included in above	206	162	368	

Increased mileage per turn-in this fiscal year ended June 30, 1941, over fiscal year ended June 30, 1940 1,204

BUS ROUTES IN OPERATION—JUNE 30, 1941

	Miles		Miles
ROUTE No. 1—PARK:			
From California Street and Tenth Avenue to Monterey Boulevard and Edna Street via California Street, Eleventh Avenue, Clement Street, Tenth Avenue, Golden Gate Park, Ninth Avenue, Judah Street, Seventh Avenue, Laguna Honda Boulevard, Portola Drive, Miraloma Drive, Yerba Buena Avenue, Plymouth Avenue, Monterey Boulevard, Ridgewood Avenue, Hearst Avenue and Edna Street, returning via Monterey Boulevard, Plymouth Avenue, Yerba Buena Avenue, Miraloma Drive, Portola Drive, Laguna Honda Boulevard, Seventh Avenue, Judah Street, Ninth Avenue, Golden Gate Park and Tenth Avenue. Connects with lines B, C, K, L, N and Bus Route No. 7. Mileage one way....	5.15	Round Trip	10.30
ROUTE No. 2—IRVING-NORIEGA:			
From Twenty-second Avenue and Irving Street to Thirty-fifth Avenue and Noriega Street via Irving Street, Twenty-third Avenue, Noriega Street to Thirty-fifth Avenue, returning via Noriega Street and Twenty-second Avenue to Irving Street. Connects with line N. Mileage one way.....	1.45	Round Trip	2.90
ROUTE No. 3—ALEMANY BOULEVARD:			
From Thirtieth and Church Streets to Sickles Avenue and Huron Avenue, via Thirtieth Street, Sanchez Street, Randall Street, Mission Street, Silver Avenue, Alemany Boulevard, Huron Avenue, Sickles Avenue, Mission Street and Huron Avenue, returning via Huron Avenue, Alemany Boulevard, Silver Avenue, Mission Street, Randall Street, Dolores Street, and Thirtieth Street to Church Street. Connects with line J and Bus Route No. 10. Mileage one way	3.45	Round Trip	6.90
ROUTE No. 4—EMBARCADERO:			
From Aquatic Park to Hyde and Jefferson Streets to Southern Pacific Depot at Third and Townsend Streets via Jefferson Street, The Embarcadero, Berry Street and Third Street, returning via Townsend Street, Second Street, Berry Street, The Embarcadero and Jefferson Street. Mileage one way..	3.40	Round Trip	6.80

	Miles		Miles
ROUTE No. 5—MARINA:			
From Scott and Chestnut Streets, bus makes continuous trip via Chestnut Street, Broderick Street, Marina Boulevard and Scott Street to Chestnut Street. Connects with line F. Mileage one way.....	.56	Round Trip	1.12
ROUTE No. 6—EUREKA-DIAMOND:			
From Market and Castro Streets to Twenty-third Street and South Van Ness Avenue via Castro Street, Nineteenth Street, Eureka Street, Twenty-third Street, and Diamond Street to Duncan Street, making a "U" turn, thence via Diamond Street, Twenty-fifth Street, Church Street, Twenty-fourth Street and South Van Ness Avenue, returning via Twenty-third Street, Chattanooga Street, Twenty-fourth Street, Church Street, Twenty-fifth Street, Diamond Street, Twenty-third Street, Eureka Street, Nineteenth Street, Collingwood Street and Market Street to Castro Street. Connects with lines J, K, L and Bus Route No. 12. Mileage one way....	2.75	Round Trip	5.50
ROUTE No. 7—MIRALOMA:			
From Forest Hill Station to Teresita Boulevard and Melrose Avenue, via Laguna Honda Boulevard, Portola Drive, Evelyn Way, Teresita Boulevard to Stillings Avenue, Detroit Street, Melrose Avenue and return over Teresita Boulevard, Fowler Avenue, Portola Drive, Laguna Honda Boulevard to Forest Hill Station. Connects with lines K, L and Bus Route No. 1. Mileage one way.....	1.80	Round Trip	3.60
ROUTE No. 9—BAYSHORE BOULEVARD:			
From Potrero Avenue and Army Street to San Bruno Avenue and Ware Street via Bayshore Boulevard and Ware Street, returning via San Bruno Avenue, Olmstead Street, Girard Street, Woolsey Street, Somerset Street, Silver Avenue and Bayshore Boulevard to Army Street. Connects with line H. Mileage one way.....	2.275	Round Trip	4.55
ROUTE No. 10—SUNSET-OCEAN VIEW:			
From Irving Street and Nineteenth Avenue to Sickles Avenue and Huron Avenue via Irving Street, Eighteenth Avenue, Judah Street, Nine-			

	Miles		Miles
teenth Avenue, Sloat Boulevard to St. Francis Circle at West Portal Avenue and Junipero Serra Boulevard, continuing via Junipero Serra Boulevard, Worcester Street, Randolph Street, Orizaba Avenue, Broad Street, Plymouth Avenue, Sickles Avenue, Mission Street and Huron Avenue, returning via Sickles Avenue, Randolph Street, Worcester Street and Junipero Serra Boulevard to St. Francis Circle, continuing via Sloat Boulevard and Nineteenth Avenue to Irving Street. Connects with lines K, L, N and Bus Route No. 3. Mileage one way	5.20	Round Trip	10.40
ROUTE No. 11—TELEGRAPH HILL:			
From Columbus Avenue and Union Street to the summit of Telegraph Hill (Coit Tower) via Union Street, Stockton Street, Lombard Street and Telegraph Hill Boulevard, returning over the reverse of this route. Connects with lines E and F. Mileage one way	.75	Round Trip	1.50
ROUTE No. 12—HOWARD STREET:			
From Market Street and The Embarcadero to Army Street and South Van Ness Avenue via The Embarcadero, Howard Street and South Van Ness Avenue, returning via the same route. Connects with lines B, C, D, H, J, K, L, N and Bus Route No. 6. Mileage one way	3.97	Round Trip	7.94
ROUTE No. 14—ROOSEVELT WAY:			
From Church and Market Streets to Haight and Belvedere Streets via Market Street, Fifteenth Street, Castro Street, Fourteenth Street, Roosevelt Way, Buena Vista Terrace, Buena Vista Avenue, Upper Terrace, Loma Vista Terrace, Roosevelt Way, Seventeenth Street, Clayton Street, Carl Street, Cole Street and Haight Street, returning via Belvedere Street, Waller Street, Cole Street, Carl Street, Clayton Street, Seventeenth Street, Roosevelt Way and Fourteenth Street to Church and Market Streets. Connects with lines J, K, L and N. Mileage one way	2.23	Round Trip	4.46
Total Bus Mileage One Way	32.985	Round Trip	65.97
Bus Route No. 1 additional on school days	.500	Round Trip	1.00

MILEAGE—SINGLE TRACK—JUNE 30, 1941

Operated Track:		
Track Wholly Owned and Operated (exclusive of Bridge Loop)	69.80	
Track Wholly Owned and Operated (Bridge Loop)	.26	70.06
Track Jointly Owned and Jointly Operated	1.33	
Track Not Owned but Jointly Operated	2.97	
Track Wholly Owned and Jointly Operated (Bridge Loop)	.21	4.51
Total Operated Track		74.57
Track Owned by Municipal Railway, Operated Exclusively by Market Street Railway (Bridge Loop)		.46
Non-Operated Track, Sidings, Turnouts, etc.:		
Line "M"—Plymouth Avenue to Sloat Boulevard	4.72	
Taraval Street between Forty-sixth and Forty-eighth Avenues	.25	
Masonic Avenue Spur	.02	
Polk and Geary Streets Spur	.05	
Columbus Avenue, between Washington and Jackson Streets	.08	
Geary Street Carhouse, Sidings and Turnouts	2.18	
Seventeenth Street Carhouse, Sidings and Turnouts	1.65	
Total		8.95
Total Single Track Mileage, June 30, 1941		83.98

MILES, ROUTES AND ROUTE MILEAGE—JUNE 30, 1941

Line "B"	14.12	Ocean to Ferries via Geary Street.
Line "C"	11.82	Thirty-third Avenue and California Street to Ferries via California and Geary Streets.
Line "D"	8.48	Presidio to Ferries via Van Ness Avenue and Geary Street.
Line "E"	7.54	Presidio to Ferries via Union Street and Columbus Avenue.
Line "F"	6.16	Scott and Chestnut Streets to Market, Fourth and Ellis Streets via Chestnut and Stockton Streets.
Line "H"	9.32	Army Street and Potrero Avenue to Fort Mason Transport Docks via Potrero and Van Ness Avenues.
Line "J"	9.12	Thirtieth and Church Streets to Ferries via Church and Market Streets.
Line "K"	15.34	Grafton and Brighton Avenues to Ferries via Ocean Avenue, Twin Peaks Tunnel and Market Street.
Line "L"	16.32	Beach to Ferries via Taraval Street, Twin Peaks Tunnel and Market Street.
Line "N"	14.56	Ocean Beach to Ferries via Judah Street, Sunset Tunnel and Market Street.
	112.78	Total Route Mileage (Ferry).
	.47	Municipal Railway Operated Mileage (Bridge Loop).
	113.25	Total Route Mileage.
	74.57	Total Track Mileage Operated.
	38.68	Duplicate Routes.

Note: Lines B, C, D, J, K, L and N mentioned above, when operating to the Bay Bridge terminal operate thirty-three hundredths of a mile less than the route mileage shown.

CHRONOLOGY

December 2, 1902. Election. Proposition authorizing $700,000.00 bonds defeated.

October 8, 1903. Election. Proposition authorizing $710,000.00 bonds defeated.

November 6, 1903. Franchise of Geary Street, Park and Ocean Railroad Company expired.

June, 1906. Budget appropriation $325,000.00 for Geary Street Railroad. Used for reconstruction and rehabilitation of streets and buildings destroyed in disaster of April 18-22, 1906.

June, 1907. Budget appropriation $720,000.00 for Geary Street Railroad. Subsequently declared invalid by court.

June 24, 1909. Election. Proposition authorizing $1,950,000.00 bonds defeated, lacking 203 votes.

December 30, 1909. Election. Proposition authorizing $2,020,000.00 bonds carried by 20,000 majority.

April 16, 1910. Superior Court declares bond issue valid in every respect. Decision affirmed by Supreme Court in July, 1910.

July 18, 1910. First lot of bonds, $121,000.00, sold.

Summer, 1911. Construction of Geary Street Railroad commenced.

May 5, 1912. The Geary Street, Park and Ocean Railroad (cable system) ceased operations.

December 28, 1912. The Municipal Railway (overhead trolley system) commenced operation on Geary Street from Kearny Street to Thirty-third Avenue and Park, with ten (10) cars, under direction of Thomas A. Cashin, Superintendent, Mayor James Rolph, Jr., acting as motorman on first car.

April 22, 1913. Referendum election. Agreement with Sutter Street Railroad Company respecting use of tracks on lower Market Street ratified.

June 25, 1913. Municipal Railway in full operation from Ferries to Beach and Park. Forty-three cars owned.

August 26, 1913. Election. Proposition authorizing $3,500,000.00 bonds for extensions of Municipal Railway carried by 37,670 majority.

December 11, 1913. Presidio and Ferries R. R. Company (Union Street Division) taken over by Municipal Railway.

May 16, 1914. Masonic Avenue branch completed.

August 15, 1914. Van Ness Avenue line from Market Street in operation to Exposition grounds.

September 7, 1914. Potrero Avenue line in operation, Eleventh and Market Streets to Twenty-fifth Street and Potrero Avenue.

December 29, 1914. Stockton Street, Columbus Avenue and North Point line in operation through tunnel.

December 29, 1914. Fort Mason Loop commenced operation.

February 10, 1915. Columbus Avenue line in operation from Ferries to Exposition grounds.

February 19, 1915. California Street line in operation to Thirteenth Avenue.

March 28, 1915. California Street line in operation to Thirty-third Avenue.

April 25, 1915. Beach loop, Geary Street line, commenced operation.

January 24, 1916. Stockton Street branch ("E") in operation from Presidio to Market, Fourth and Ellis Streets.

April 29, 1916. Church Street line (Sect. "C"), Sixteenth to Eighteenth and Twenty-second to Thirtieth Streets, ready for operation.

June 1, 1916. Columbus Avenue ("J" line), Ferries to Exposition grounds discontinued.

June 12, 1916. Church Street line (Sect. "A"), Van Ness Avenue and Market Street to Sixteenth and Church Streets, started by day labor. Held up by United Railroads injunction.

June 28, 1916. Church Street line (Sect. "B"), Eighteenth to Twenty-second Streets, ready for operation.

December 21, 1916. Potrero Avenue line ("H") extended from Twenty-fifth Street to Army Street. Twenty-two hundredths mile added. Placed in operation January 19, 1917.

August 11, 1917. Church Street line ("J"), Van Ness Avenue and Market Street to Church and Thirtieth Streets, commenced operation.

February 3, 1918. Twin Peaks tunnel line ("K") to Van Ness Avenue and Bush Street commenced operation. (Length of tunnel 11,920 feet.)

May 4, 1918. Greenwich Street extension (Van Ness Avenue line), Scott to Baker Street, commenced operation.

June 1, 1918. Market Street lines ("J" and "K"), Van Ness Avenue to Geary Street, commenced operation, establishing through service, Ferries to Sloat Boulevard.

October 30, 1918. Third loop opened at Ferry terminus.

February 21, 1919. Market Street line ("K") commenced operation over United Railroads' tracks on Ocean Avenue to Miramar Avenue.

April 12, 1919. Taraval Street line ("L") commenced operation from West Portal to Twin Peaks tunnel to Thirty-third Avenue, operating co-jointly with the United Railroads on Taraval Street between Twentieth Avenue and Thirty-third Avenue.

May 18, 1919. Market Street line ("K") commenced operation over extension along Ocean and Brighton Avenues to Grafton Avenue.

July 22, 1919. Changed and shortened route of Van Ness Avenue line ("D") and United Steet line ("E") by track connection on Union Street between Franklin Street and Van Ness Avenue.

August 7, 1919. One elevator placed in operation at Forest Hill station of Twin Peaks tunnel.

December 8, 1919. Presidio loop, Van Ness Avenue and Union Street lines, commenced operation.

January 14, 1923. Taraval Street line ("L") commenced operation over extension on Taraval Street, between Thirty-third Avenue and Ocean Beach.

October 15, 1923. Taraval Street line ("L") operated as a through line from Beach to Ferries via Twin Peaks tunnel and Market Street.

October 6, 1925. Line "M" commenced operation between Plymouth Avenue and Broad Street to St. Francis Circle.

February 1, 1928. Second elevator (the largest on the Pacific Coast) installed at Forest Hill station of Twin Peaks tunnel.

October 21, 1928. Line "N" commenced operation between Forty-eighth Avenue and Judah Street and the Ferries.

January 8, 1932. Jurisdiction over the San Francisco Municipal Railway was transferred from the Board of Public Works to the San Francisco Public Utilities Commission under provisions of the new charter.

June 1, 1932. Line "O" commenced operation between Van Ness Avenue and Market Street and the Presidio (a rearrangement of lines "D," "E," and "H").

July 15, 1932. Line "O" abandoned and lines "D," "E" and "H" placed on their original routing.

December 5, 1932. Line "A" discontinued.

December 5, 1932. Bus Route No. 1 extended to Tenth Avenue and Lake Street.

January 3, 1933. Bus Route No. 2 discontinued.

January 30, 1933. Bus Route No. 1 North Terminal changed to Tenth Avenue and California Street.

December 5, 1933. Bus Route No. 1 South Terminal changed to Edna Street and Monterey Boulevard.

July 28, 1935. Bus Route No. 6 commenced operation. Eureka Valley Station to Diamond and Clipper Streets.

September 15, 1937. Line "L" extension to Fleishhacker Pool commenced operation.

January 1, 1938. Bus Route No. 5 Marina Route routed over Broderick Street instead of Divisadero Street.

May 8, 1938. Bus Route No. 6 South Terminal changed to Diamond and Duncan Streets.

January 15, 1939. Bay Bridge trains started operation to Bridge Terminal. Alternate Municipal Railway cars operated over Bay Bridge loop.

June 25, 1939. Bus Route No. 6 rerouted over Castro, Nineteenth, Eureka, Twenty-third, Diamond, Clipper, Church, Twenty-fifth, Collingwood, and Market Streets.

July 9, 1939. Bus Route No. 8 commenced operation from Judah Street and Seventeenth Avenue to Taraval Street and Fifteenth Avenue.

July 23, 1939. Bus Route No. 7 commenced operation from Forest Hill Station to Rio Court.

July 30, 1939. Bus Route No. 11 commenced operation from Union and Powell Streets to Coit Tower, Telegraph Hill.

August 6, 1939. Bus Route No. 9 commenced operation from Potrero Avenue and Army Street to Bacon and Somerset Streets.

August 6, 1939. Bus Route No. 10 commenced operation from Balboa Terraces to San Jose Avenue and Plymouth Avenue.

August 6, 1939. Car line "M" discontinued and replaced by Bus Route No. 10.

August 24, 1939. Bus Route No. 10 Northern Terminal extended from Balboa Terrace to St. Francis Circle.

October 14, 1939. Bus Route No. 6 Southern Terminal extended to South Van Ness Avenue and Twenty-third Street.

October 15, 1939. Bus Route No. 10 Southern Terminal extended to Sickles Avenue and Mission Street.

October 30, 1939. Bus Route No. 9 Southern Terminal extended to San Bruno Avenue and Ware Street.

December 27, 1939. Five new modern streamlined passenger cars were placed in service.

July 2, 1940. Bus Route No. 12 commenced operation from Beale and Howard Streets to Army Street and South Van Ness Avenue.

July 7, 1940. Bus Route No. 12 Eastern Terminal extended from Beale and Howard Streets to Market Street and the Embarcadero.

November 18, 1940. Bus Route No. 1 extended to San Francisco Junior College on school days.

January 1, 1941. Lines "B," "D," "K," and "N" Eastern Terminal changed to Bridge Terminal and lines "C," "J," and "L" Eastern Terminal changed to Ferry Terminal from alternate cars of each line to Bridge and Ferry Terminals.

March 23, 1941. Bus Route No. 2 commenced operation from Twenty-second Avenue and Irving Street to Thirty-fifth Avenue and Noriega Street.

March 23, 1941. Bus Route No. 3 commenced operation from Thirtieth and Church Streets to Sickles and Huron Avenues.

March 23, 1941. Bus Route No. 8 discontinued.

March 23, 1941. Bus Route No. 10 Northern Terminal extended from St. Francis Circle to Nineteenth Avenue and Irving Street.

April 6, 1941. Bus Route No. 14 commenced operation from Noe Street and Duboce Avenue to Haight and Belvedere Streets.

May 5, 1941. Bus Route No. 3 changed from Church Street, Day Street, and Dolores Street to Thirtieth Street, Sanchez Street and Randall Street.

May 19, 1941. Bus Route No. 14 Eastern Terminal changed from Noe Street and Duboce Avenue to Church and Market Streets.

June 8, 1941. Bus Route No. 7 Southern Terminal changed from Rio Court to Teresita Boulevard and Melrose Avenue.

June 30, 1941. Total single track mileage 83.98 (see mileage statement).

June 30, 1941. Total one-way bus mileage 32.485 (see mileage statement).

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of the
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by
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